Northern Power Inclusion Matters

Northern Power: Making Engineering and Physical Sciences Research a Domain for All in the North of England

Evaluation Report

Authors

Helen Cramman*, Helen Gray*, Nadia Siddiqui*, Jenna Tudor**

*School of Education, Durham University, Leazes Road, Durham, DH1 1TA

** Human Resources, Northumbria University, Ellison Place, Newcastle upon Tyne, NE1 8ST

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Evaluation team

The evaluation team was comprised of six team members:

- **Dr Helen Cramman**
  School of Education, Durham University
- **Dr Helen Gray**
  School of Education, Durham University
- **Dr Roger Penlington**
  Department of Mechanical and Construction Engineering, Northumbria University
- **Dr Nadia Siddiqui**
  School of Education, Durham University
- **Dr Jenna Tudor**
  Human Resources, Northumbria University
- **Julia Guy**
  Equality, Diversity and Inclusion (EDI) Department, Durham University

Project team

The Northern Power Inclusion Matters project team was comprised of:

- **Caroline Ackroyd,**
  University of Leeds
- **Robert Adams,**
  University of Leeds
- **Rachel Archbold,**
  Durham University
- **Professor Colin Bain,**
  Durham University
- **David Broad,**
  University of Leeds
- **Professor Vania Dimitrova,**
  University of Leeds
- **Professor Simon Gardiner,**
  Durham University
- **Jill Green,**
  University of Leeds
- **Julia Guy,**
  Durham University
- **John Holmes,**
  Northumbria University
- **Louise Jones,**
  Newcastle University
- **Dr Sharron Kuznesof,**
  Newcastle University
- **Sabiha Patel,**
  Lancaster University
- **Dr Roger Penlington,**
  Northumbria University
- **Professor Judith Rankin,**
  Newcastle University
- **Professor Steve Scott,**
  University of Leeds
- **Sharon Stewart,**
  Northumbria University
- **Dr Jenna Tudor,**
  Northumbria University
- **Julie Wilson,**
  Durham University

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- **(Chair) Mrs Susan Johnson OBE**
  Commissioner with the Equality and Human Rights Commission
- **(Deputy Chair) Dr Bernadine Idowu-Onibokun**
  Senior Lecturer Biomedical Science, University of West London and Founder and Chair of the BME Early Career Researcher – How to stay in academia conference, Kings College London
- **Professor Sarah Sharples**
  Pro-Vice-Chancellor (PVC) for Equality, Diversity and Inclusion at the University of Nottingham
- **Cheryl Millington**
  Non Executive Director of Atom Bank Plc, Intu Properties and Equiniti
- **Professor Patrik Öhberg**
  Head of Photonics and Quantum Sciences Research Institute at Heriot-Watt University
- **Professor Claire Warwick**
  Professor of Digital Humanities in the Department of English Studies at Durham University
- **Professor Dorothy Monekosso**
  Director of Research at Leeds Beckett University (School of Computing, Creative Technologies & Engineering)
- **Professor Jeremy Sanders CBE FRS**
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  Senior Lecturer in School of Engineering at University of Central Lancashire
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Statement on Use of Language, Abbreviations and Terminology

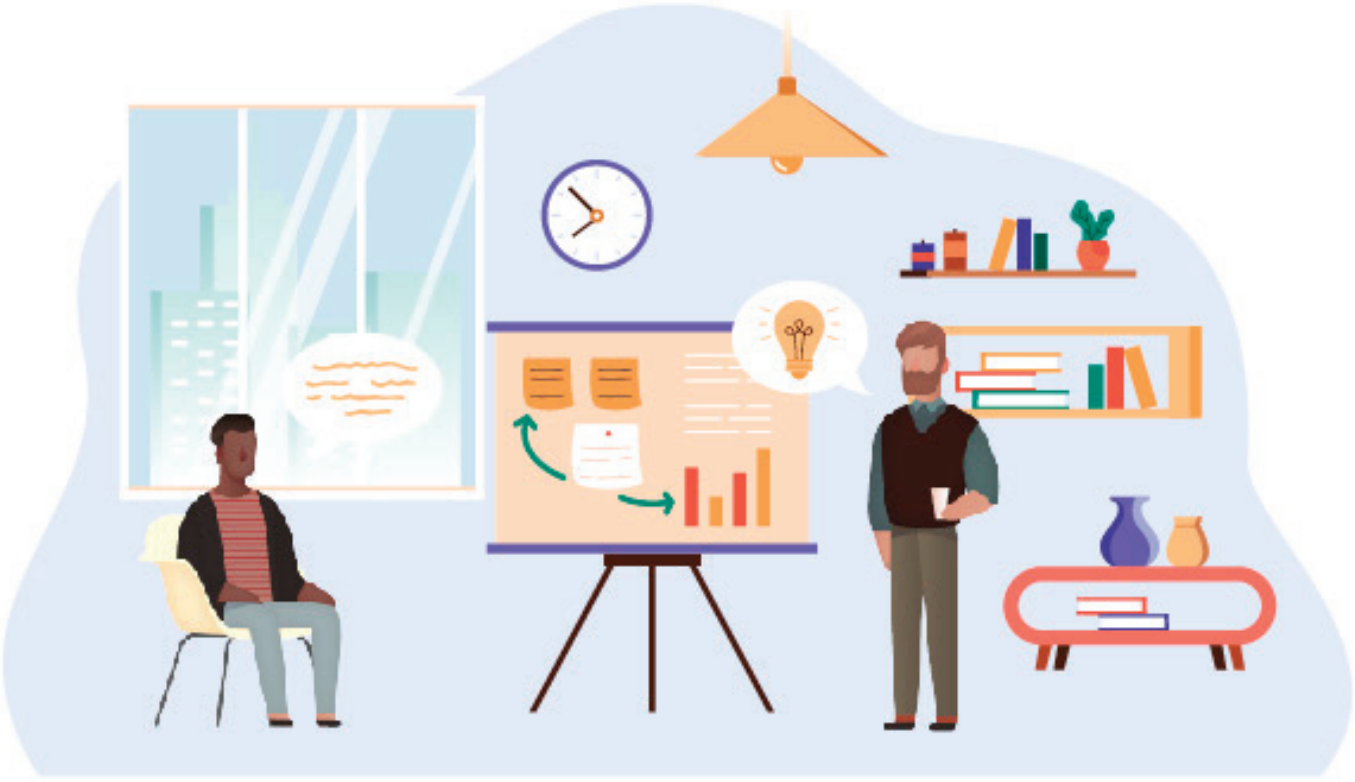
The application for this project under the EPSRC Inclusion Matters funding call was submitted in April 2018. At the point of writing the language, terminology and acronyms used within the proposal were widely used by government departments, the media and public bodies, and these were largely considered to be correct and inclusive.

At the end of the project, when producing the Toolkit, Evaluation Report and other outputs, there has been an evolution towards a more nuanced understanding of inclusive language, for example the implications around the use of the acronym BAME. Whilst we have used the acronym BAME in our analysis, we simultaneously recognise the complexities of using a reductionist term to describe a population that is highly diverse and has varying experiences and outcomes within Higher Education and society in general. Similarly, understanding around gender and sexuality and the language used has also progressed.

We have elected to preserve the terminology set at the start of the project, due to our obligation to maintain the identification of the participants as they stated in their agreement to be involved in the project.

Contents

EXECUTIVE SUMMARY



1. Executive Summary

Overview

1. The Northern Power Inclusion Matters programme took place between September 2019 and June 2021 and included six strands of activities within the time period of the evaluation (which completed data collection in February 2021). These activities included: Shared Characteristics Mentoring; Reciprocal Mentoring; Online Platform; Academic Networking; and two University-Industry Collaboration activities. A Leadership Development activity was also scheduled for after the end of the evaluation period. Full details of the activities can be found in the Northern Power Inclusion Matters Practitioner Toolkit (https://doi.org/10.15128/r1gf06g267h). An interactive version of the Toolkit can be found at https://northernpowerinclusiontoolkit.org.

2. One-hundred and seven applications were received to the Northern Power Inclusion Matters programme with 102 participants being offered a place on the programme. By the end of the evaluation period, 78 people had participated on one or more activities on the programme. Staff from all but one partner HEI took part in the programme, along with participation from staff at five industry partners. Two-thirds of participants took part in one activity on the programme with a third participating in two or more activities.

3. The programme aimed to work with early career scientists and engineers, seeking to support, drive and sustain greater equality for all, including traditionally under-represented groups (e.g., women, disabled people, LGBT+, and black, Asian and minority ethnic (BAME) researchers). The project met this aim, with participants from a broad range of under-represented backgrounds taking part and 70% of participants providing information on their personal characteristics.

4. Participants' reasons for wishing to take part were varied but aligned with the aims of the programme. Participants were interested in hearing from colleagues in similar situations relating to balancing work with caring responsibilities; staff with a disability wanted to understand and seek advice in relation to progression and promotion; many staff were aiming to increase their confidence; others wished to share their own experience or to drive change in relation to EDI; and several indicated that they wished to help others by passing on information or being a role model. In addition, participants also stated their desire to take part in the specific activities being offered by the programme.

Impact for participants from taking part in the Northern Power Inclusion Matters programme

5. Due to the overall timescale of the project and the postponement of several activities until later in the programme timeline, it was too early for many of the participants to have been able to enact advice they received to support submission of applications for promotion, senior leadership or grants. It will therefore be necessary to wait to see whether the activity supports successful applications for promotion, senior leadership positions and grants in the future.

6. Participants described barriers or challenges they had encountered in being able to participate in activities or to act on advice they received during the programme. Time and Covid-19 (especially relating to workload, home working, limited social interaction and recruitment freezes) were the main challenges described by participants.

7. Of the 27 participants that responded to the end of programme survey question (and for whom submitting an application for promotion was relevant), 14 considered that participating in the programme had already, or would help them in the preparation of an ***application/nomination for promotion*** in the future. Fifteen out of the 31 participants that completed the end of programme survey question (and for whom applying for promotion was applicable) reported that participating in the programme had increased their confidence to apply for promotion, with a further 15 reporting it had led to no change in their confidence. It is important to note that these are self-reported responses in the end of programme survey and are not an independent measure of confidence change.

8. Overall, of the 28 participants that responded to the end of programme survey question (and for whom submitting an application was relevant), 17 considered that participating in the programme had already, or would help them in the submission of an ***application for senior leadership*** in the future. Sixteen of the 31 participants that that had completed the end of programme survey question (and for whom applying for a senior leadership position was relevant) felt that the programme had increased their confidence to submit an application for a senior leadership with 14 participants feeling that it had led to no change.

9. Of the 30 participants that responded to the end of programme survey question (and for whom submitting a funding application was relevant), 14 considered that participating in the programme had already, or would help them in the ***submission of an application for a grant/fellowship/scholarship/award where they were Principal Investigator (PI)*** in the future. Thirteen of the 29 participants that responded to the end of programme survey question (and for whom the question was relevant) reported that they felt their participation in the programme had increased their confidence to submit a funding application as PI in the next year, with 16 participants reporting that it had made no change to their confidence. In relation to submitting an application as a Co-I in the next year, 15 participants reported that it had increased their confidence to submit an application as a Co-I, with 14 reporting no change.

10. Although participants on the programme reported their intentions to change their own practice to be more aware of EDI issues and to actively improve their practice in this area, Early Career Participants (ECPs) did not consider that they could change wider practice within their institution. Perceived barriers to being able to do this included: organisational resistance and reluctance to change; large organisations being hard to change; the scale of the changes required; and the position of the ECPs not being one which had influence. Senior mentors on the Reciprocal Mentoring activity considered that Reciprocal Mentoring may be a useful mechanism to include within their organisations to gather the views and experiences of ECPs. This may therefore, be one mechanism to enable ECPs to have more influence at an institutional level.

Impact for HEIs from taking part in the Northern Power Inclusion Matters programme

11. Participating HEIs reported that the project had already led to changes in practices within their institutions. These changes included modifications and additions to training provision, reviews of practice within the institution and collaborative bidding for research funding and doctoral training programmes. The changes in practice focussed on areas where senior leaders involved with the project had influence and the ability to implement change. HEIs reported that participation in the project had not yet reached a stage of impacting on policy. Where policies had changed during the period of the project, these changes were already in the pipeline before the start of the project. This finding is not unexpected, as it usually takes several years to change policies within HEIs.

Participants' perceptions of the activities within the programme

12. *Shared Characteristics Mentoring* - Twenty individuals, forming ten mentor-mentee pairs, took part in the Shared Characteristics Mentoring activity. Mentees on the Shared Characteristics Mentoring activity appreciated the focussed time given by their mentors and acknowledged the value of this activity. They appreciated being paired with a mentor with similar identity and interests, who had the experience and perspective to offer insight into the reality of progressing in academia with these characteristics. They also commented on the benefit of the personal and honest advice they felt they received. Mentees highlighted that the cross-institutional nature of the activity and being matched outside their institution allowed them freedom to share thoughts and experiences with their mentor without any fear of bias from their colleagues in their department. The mentees reported they felt safe to discuss their challenges and available options in a trusting environment.

13. *Reciprocal Mentoring* - Twenty-two individuals, making up eleven pairs of junior and senior mentors, took part in the Reciprocal Mentoring activity before the end of the evaluation period (the activity continued with additional participants after the end of the evaluation). Junior mentors on the Reciprocal Mentoring activity reported that participation in the activity had enabled them to share their experiences with a senior leader as someone from an under-represented group, and had provided them with advice from a senior leader. Senior mentors indicated that they considered Reciprocal Mentoring to be a feasible method of gaining insights into the challenges and barriers faced by staff in general, and in particular for ECRs. Some senior mentors suggested that Reciprocal Mentoring could be considered as a strategy for providing a space for under-represented groups to add their voice to policy development initiatives. All interviewed senior mentors said that it was an excellent learning experience and they would want to recommend it to their institutions.

14. *Online Platform* - Over the period within the evaluation when the Online Platform was live to participants, the Online Platform was visited 330 times, with 169 visits to activity module pages. Of the 23 participants who reported in the end of programme survey that they had accessed the Online Platform, 14 agreed or strongly agreed

that it provided access to advice, 15 agreed or strongly agreed that it provided access to support and 12 agreed or strongly agreed that it provided access to useful webinars. Content developed by the activities in the project is available from the project website: https://northernpowerinclusion.org/

15. *Academic Networking* - Four participants took part in the Academic Networking activity before the end of the evaluation period (the activity continued with additional participants after the end of the evaluation). For the two (out of four) participants that responded to the end of programme survey, both reported that the Academic Networking activity had helped them "a lot" in providing them with opportunities to: work with someone from the Inclusion Matters programme to identify networking opportunities; access funds to attend networking events; and to gain exposure to opportunities which allow them to progress and develop their academic career. Both participants reported that the activity had provided help to develop a personal development plan, participate in networking activities that supported personal development, and to build networks.

16. *University-Industry Collaboration:* EDI in Engineering and Physical Sciences (EPS) event - Twenty-six participants took part in the EDI in EPS one-day event, from seven HEIs and four industry partners. Participants considered the event to be effective and that it differed to other EDI events due to: the range of talks, participants and perspectives at the event; the use of examples/case studies to show challenges that had been faced and solutions that had been used to overcome them; the interactive, open, conversational, informal nature of the session; and the positive attitude of attendees with an open ethos.

17. *University-Industry Collaboration:* Being Prepared for Business workshops - Thirty-three participants took part in one or more of the four Being Prepared for Business workshops. The response rate to the end of programme survey was low, however of those that responded, five out of the six respondents considered that the workshop met the aim to develop skills for pitching and presenting. After reflecting on comments from participants, the decision had been made to provide much more support to participants around communication and working with industry. The Being Prepared for Business activity had originally been designed with the expectation of honing participants skills, however, the delay to delivery created by Covid-19, enabled the organisers to redevelop the content based on feedback from participants, to focus on development of basic skills to support communicating with industry professionals.

Cross-institutional programme

18. The cross-institutional aspect of the Northern Power Inclusion Matters programme was an important factor within its design and delivery. Both participants and HEIs had reported that they had found it extremely useful to find out about practices at other institutions. Although individual activities were already available at single HEIs, the ability to provide them cross-institutionally with multiple HEIs and industry partners, was seen as being distinctive and beneficial for the intended participants. This way of working was considered to be a positive and important aspect of the programme structure.

19. Participants valued being able to speak more freely, having the opportunity to speak with peers, mentors and advisors from a similar background to themselves that had faced similar challenges (which was not always possible within the smaller number of colleagues with shared characteristics in their own institutions), and feeling like the activities they were involved in celebrated their protected characteristic rather than being isolated.

20. The contribution from speakers and attendees from a range of organisations from both academia and industry was perceived as particularly effective. In addition, the topics having personal meaning to the speakers, was also felt to have made the activities stand out.

21. Retaining the cross-institutional element for future implementation was considered to be important, as it enabled participants an opportunity to meet in a safe way with others in a similar situation. However, it was also felt that this introduces specific challenges for future implementation. Three areas were raised in consideration of future implementation:

    - ***Consideration of different HEIs' policies and practices*** – Each HEI has its own priorities, processes and challenges. In order for effective cross-institutional working, careful consideration and planning has to be made to ensure that there is sufficient fit between partners.

    - ***Access to funding*** – Access to funding for cross-institutional initiatives was anticipated to be challenging. It was anticipated that it might require an arrangement such as is seen in Doctoral Training Partnerships (DTP) to enable such working. However, it was acknowledged that HEIs do often like to be able to work together under a named collaboration and that this might be a way to encourage such initiatives. It was anticipated that senior leadership would need to champion cross-institutional implementation due to the funding challenges it potentially presented.

    - ***Where to embed within organisations*** – For successful future implementation, careful consideration of where to implement activities within HEIs was highlighted. Some activities were thought to potentially better fit with Organisational Development, through alignment with existing practices or inclusion in role expectations e.g. including as part of the progression and promotion process.

Recruitment

22. Sign up by participants to the programme had been slower than expected. Although there was a good launch, the initial uptake was not as high as hoped for. Although it had been anticipated that staff with invisible/undeclared characteristics may be more difficult to recruit due to a potential reluctance to declare how they met the eligibility criteria, it was expected that those with visible identities would be more enthusiastic to participate. Several themes emerged from comments from participants and discussion with the developers as to possible reasons why potential participants may have been reluctant to join the programme. These included: heavy work-loads for ECRs; the short-term nature of the contracts for some ECRs; alignment of the aims of the programme with the priorities of ECRs at that stage in their career. Further research is needed in this area to understand the complexities for ECRs engaging with professional development opportunities.

Future Development

23. Future proposed refinements to the programme include the introduction of additional communication to support managing participants' and applicants' expectations. Examples of areas where this was considered to be a particularly useful future focus were as part of the mentor matching process for both Shared Characteristics Mentoring and Reciprocal Mentoring. The process of matching took place over a long period of time, and as such, maintaining regular communication with participants to provide more frequent updates on the process and to discuss alternative options was perceived to be a beneficial addition to future implementation.

24. Across several of the activities, expectations of participants relating to approaches to professional development was of interest. Discussion with participants and developers indicated that there was a perception that some participants considered that by attending an activity, this would lead to change in their behaviour or circumstances and that no further engagement would be required. However, the importance of acting on the advice they received and engaging in continued development was emphasised by the developers.

25. Two specific areas were highlighted by participants for further consideration by organisations related to awareness of diversity and inclusive practice. The first area concerned increasing the awareness of staff working within and with HEIs and industry of ways to be considerate of the needs of different colleagues. The second area highlighted was to increase the awareness and knowledge of EDI of those working with HEIs. In delivering the programme, it was found that academic trainers were often not knowledgeable about EDI considerations. Clear communication, guidance or requirements for experts being engaged by HEIs for training, could be a positive step to ensuring a more inclusive environment.

Factors for successful implementation

26. The programme identified several key factors for successful implementation of a cross-institutional EDI programmes such as Northern Power Inclusion Matters. Factors which were central within these suggestions were:

    - ***Scope*** – Identification of how the programme of activities can best support the individual needs of partner organisations and participants at all institutions.
    - ***Focus group consultation with potential participants*** - A series of focus groups with potential participants should be included to reduce assumptions about what participants want, and to provide focus for specific needs within the local context.
    - ***Knowledge of policies and practices at partner institutions*** – A detailed understanding the systems and structures within all partner institutions is essential to understand what the requirements are for programme delivery (e.g. recruitment processes, ethics and GDPR processes, governance and support structures).
    - ***Ethics and GDPR*** - Consideration of the time and resource to enable data sharing between multiple partners along with each institution's requirements within its ethics and GDPR processes.
    - ***Close collaboration with professional services staff*** – Inclusion of voices from different areas within HEIs to provide a range of perspectives and to strengthen development and implementation.
    - ***Academic lead with interest in EDI*** – Dedicated time from an academic lead with an interest in EDI, working closely with the EDI team in their organisation to embed practical delivery.
    - ***Enablers*** - Identifying teams and individuals with the authority to support and action decision making across multiple areas in an organisation is essential due to the cross-cutting nature of EDI programmes.
    - ***Marketing and communications*** – Inclusion of a dedicated marketing and communications role within the programme with a focus on communication with participants and partners.

INTRODUCTION

2. Introduction

Background to Northern Power Inclusion Matters

The overarching aim of the Northern Power Inclusion Matters programme was to shape an actively inclusive culture in the Engineering and Physical Sciences (EPS) community (academic and beyond) in the North of England that supports, drives and sustains greater equality for all, including traditionally under-represented groups (e.g., women, disabled people, LGBT+, and black, Asian and minority ethnic (BAME) researchers).

The objectives of the programme were:

- To develop a better understanding of the challenges and opportunities faced by groups under-represented in EPS across our consortium and beyond;
- To share this understanding with Higher Education Institutions (HEIs), research councils, industry and policy makers;
- To present cross-institutional networking, mentoring and disciplinary opportunities for members of groups under-represented in EPS within our consortium;
- To establish and share best practice with regard to developing inclusive EPS communities from HEIs and industry (and beyond) with other HEIs, research councils, industry and policy makers through seminars, publications and an online platform.

The aims of the project were to increase:

- Academic staff recruitment from under-represented groups;
- Development of platforms to support their retention, academic progression and visibility;
- Development frameworks to encourage equality, diversity and inclusion practices;
- Generate evidence on effective mentoring.

Summary of key findings from the literature

A literature review of existing evidence relating to best practice for the implementation of the activities within the Northern Power Inclusion Matters programme, was undertaken at the start of the project. The aim of the best practice literature review was to inform the evaluation and to also provide a concise summary of pragmatic evidence to support individuals and organisations implementing the programme. The full literature review can be found as an Appendix to the Northern Power Inclusion Matters Practitioner Toolkit (https://doi.org/10.15128/r1gf06g267h). The key findings from the review are provided below.

Shared Characteristics Mentoring

- One-to-one mentoring (senior mentors junior) has been found to be effective in circumstances where mentees choose their own mentors. Outcomes that have been found to be improved through one-to-one models are retention, performance, visibility of the mentee and satisfaction.
- Shared interest matters more than shared characteristics.
- Mentoring combined with incentives such as travel grants or residential courses have shown promise in relation to factors relating to academic progress (such as publication, conference presentations and grants success).
- Matching on characteristics such as ethnic groups coupled with gender seems promising for students in STEM subjects, but has no clear evidence of if it works in a HE context of work, retention and job progression.
- Very few existing studies report measurable outcomes.

Reciprocal Mentoring (note the literature review was undertaken looking at Reverse Mentoring programmes as this was the original design within the programme)

- No Randomised Controlled Trials (RCT) or quasi experimental studies or systematic reviews have been undertaken previously to evaluate reverse mentoring.
- Some qualitative work with no comparisons show that it is feasible if tailored according to the needful targets. However, the outcomes are very unclear. Only survey-based studies measured satisfaction of the employees.
- Some weak evidence suggests promising effects on progression of women in leadership roles.
- Reverse mentoring programmes are feasible for implementation. However, there is no evidence of the effects in organisational change.
- The programmes implemented were structured in terms of time, topic of discussion and records of the meetings.

Online Platforms

- User satisfaction and level of usage of online platforms are affected by the quality of the service, system and information.
- A much higher proportion of members of online communities read content than provide it, but those who only read are also important to the success of an online community.
- Different factors make online communities successful at different points in their lifecycle. Focus on these different factors improves the chances of the continuation of the community.

Leadership Development

At the level of the Leadership Development training programme:

- An organisational, group or individual training needs analysis should be conducted and the subsequent programme should align with the identified needs.
- The programmes should have clearly defined and widely accepted leadership goals in order to be seen as worthwhile by participants and others within the organisation.
- Self-administered programmes are not as effective for learning as directed courses.
- Programmes delivered face-to-face are more effective at changing what participants do after their training, compared to virtual (web-based) programmes.
- Multiple delivery methods (e.g., workshops, lectures, activities) lead to greater learning than when fewer delivery methods are used.
- The inclusion of both 'hard' (e.g., budget monitoring) and 'soft' (e.g., interpersonal relationships) skills in a leadership programme benefits both the individual and the organisation.
- Longer programmes with time between sessions lead to greater organisational outcomes, possibly due to increased knowledge transfer, time for multiple delivery methods or an increase in perceptions of the training programme's value.

At the level of the institution

- Improvements in Leadership Development are easier to maintain and track if someone has responsibility for it at an institution level.
- Organisations need to be more transparent in promotion criteria in order for any inequalities between groups to be seen and addressed.
- The organisation needs to consider workload distribution if inequalities between groups are to be seen and addressed e.g., via an equity audit.

Collaboration with Industry

- University-Industry Collaboration (UIC) can be divided into stages: pre-linkage, establishment, engagement, advancement, and latent phase.
- The initial UIC contact may be through conferences, referrals from colleagues or more impersonal means, e.g., internet searches.
- Face-to-face contact at the beginning of the relationship or collaboration, is a good way to learn about the needs and goals of partners and identify those with similar working styles.
- In the longer term, personal networks are important to facilitate future collaborations.
- Barriers to UIC include differing timescales of dissemination of results between industry and universities, and differing purpose of research for academics and industry.
- For a successful UIC there must be an acceptance of different social values, norms and cultures.
- Trust between partners is a necessary condition for the collaboration to work.
- Successful partnerships have relationships at the personal as well as organisational level.

Activities within the Inclusion Matters Programme

A summary of each of the activities in the Northern Power Inclusion Matters programme is provided below. A detailed description of each activity can be found in the Northern Power Inclusion Matters Practitioner Toolkit (https://doi.org/10.15128/r1gf06g267h). An interactive version of the Toolkit can be found at https://northernpowerinclusiontoolkit.org.

The original design of the Northern Power Inclusion Matters programme consisted of eight activities:

- Shared Characteristics Mentoring
- Reciprocal Mentoring
- Online Platform
- Academic Networking
- Leadership Development
- University-Industry Collaboration comprised of
- Equality, Diversity and Inclusion in the Engineering and Physical Sciences Event
- Engaging Collaboration: Being Prepared for Business
- Workplace Shadowing

Shared Characteristics Mentoring

This activity was implemented in March 2020 and was aimed at retention, progression and visibility of under-represented groups in Higher Education Institutions through feasible mentoring practices. The activities supported the ethos of positive equality, diversity and inclusion practices. The activity allowed those involved the time to develop an appreciation of current work practices and institutional cultures within both of the settings, and to identify shared areas of interest.

In the Northern Power Inclusion Matters programme, the operational definition of shared characteristics and shared interests were as follows:

Shared Characteristics Mentoring – Early career staff from under-represented groups are mentored by more senior staff who have similar identities or personal attributes, traits, qualities, and experiences that are perceived to be similar.

Shared interests is defined as: Academic experiences (e.g., career trajectories, discipline areas, writing grant proposals, promotion applications, learning about research funding pathways etc.) that are perceived to be similar, and similar personal interests.

The Shared Characteristics Mentoring activity consisted of several elements. All mentors and mentees were expected to attend or access a training workshop or online module to support them in the delivery of the mentoring sessions. This was accompanied by a mentoring handbook. The mentor and mentee pairs were then expected to undertake at least four, hour long online mentoring sessions over the course of the activity.

Reciprocal Mentoring

This mentoring style was implemented with a focus on bridging the knowledge gap between under-represented groups and decision-making authorities in HEIs and industry. The aim of Reciprocal Mentoring sessions was to establish a productive communication and positive relationship in which the matched pair were a junior mentor and a senior mentor, both taking on the role of mentor and mentee. This is an adapted form of the traditional mentoring style and is designed to enable a mutual and reciprocal learning relationship. Junior mentors led discussions with a purpose to bring forward their challenges relating to career progression and to inform the senior mentors about their experience of working in the HEI. The knowledge gained in this session is intended to bridge the gap between executive authorities, who make and inform policies, and Early Career Participants (ECPs), who are mainly at the receiving end of the policy impact.

The senior mentor self-nominated themselves to participate in the programme, received training from an expert, and participated in at least two meetings with their junior mentor. The junior mentors also self-nominated to participate in this mentoring activity after receiving training from an expert. The mentoring training sessions took place over a number of months and were designed and tailored towards the needs of the participants. The formal training sessions were delivered by an expert on topics including managing effective communication, how to get the most from their mentoring experience, active listening, how to positively communicate sensitive issues and views, and comfort in using language in an EDI context. The training sessions took place in small groups, with senior and junior mentors being trained separately. After the training, pairs of senior and junior mentors were matched based on their personal characteristics, institutional roles, and interests in university level policies for academic development.

The mentoring sessions were informal discussions led by the junior mentor, where senior mentors' participation was in the form of listening to the issues with an aim to learn, understand and respond to the raised issues. The senior mentors could bring in their knowledge, experience, and perspectives to clarify the issues concerning the challenges faced by the under-represented groups. However, the main purpose of the discussion was to gain knowledge about the challenges faced by the under-represented participants and be able to use this knowledge and experience in policy and practice reforms, and development.

For junior mentors, this was an opportunity to discuss general issues with the higher level of university administration who make policies that impact on their career, promotion, and progression. The junior mentors selected discussion topics relevant to the challenges they faced in their university careers and led the discussion with their senior mentors. In this process of discussion, the senior mentors had the opportunity to understand the perspectives and experiences of the junior mentors. The participation of junior mentors was expected to boost their confidence in raising a voice to express their concerns regarding career development, to give the opportunity to ask for advice, and to enable them to gain exposure to leadership activities that they normally would not be able to access.

Online Platform

The aim of the Online Platform was for communication between participants across the programme, both academic and non-academic, to enable and support the project's activities. It aimed to provide an informal platform for: advice and support; sharing best practice around EDI in Engineering and Physical Sciences (EPS); sharing success stories from members of under-represented groups; webinars; and highlighting cross-institutional opportunities relating to research activities and events. The aims were to support the project's activities and to enable administrative streamlining for activities; provide accessible networking; highlight opportunities across institutions and to draw together diverse views that will increase creativity and less stereotypical thinking within the EPS community.

The Northern Power Inclusion Matters programme consisted of two areas: a website and the Online Platform (Table 1). The website was hosted by one of the partner institutions within the programme and acted as an introduction and information page. Visitors were able to see the range of activities offered and sign up to the programme.

The Inclusion Matters Online Platform, hosted by an external provider, contained content provided by the individual activity teams. On the Online Platform there was a guest area containing a calendar of upcoming events and more general information relating to the aims of the project, including training materials, complementary materials, and links to other websites and resources. Once accepted on to the Northern Power Inclusion Matters programme, participants were given a login to the platform and were given access to their allocated activity spaces. Content varied between activities but included training videos, links to appropriate content and discussion forums.

Table 1. *Content and access to the Northern Power Inclusion Matters website and Online Platform.*

	Website	Online Platform
Hosted by	Partner HEI within the project	External provider
Web address	www.northernpowerinclusion.org	www.northernpowerinclusion.com
Access	Open access	Guest log in (open to all to create a log in) Participant log in (restricted access)
Content	Project overview Project team Activity details Link to registration form	Guest log in accesses general content Restricted participant log in accesses activity specific content

Academic Networking and Leadership Development

The aim of these activities was to develop cross-institutional network and leadership opportunities for individuals from under-represented groups in engineering and physical sciences at their home institution and beyond. The aim was that participants would benefit from: increased knowledge of H.E frameworks, policies and processes; access to support networks; awareness of career development opportunities and this would aim to result in increased confidence, resilience, personal impact, voice and influence.

Academic Networking

The aim of this activity was to provide members with the opportunity to participate in networking activities which will support their personal development and career objectives.

The potential benefits that the activity aimed to achieve were:

- Greater awareness of career development opportunities;
- Access to peer support networks;
- Increased visibility within their own institution and beyond.

Participants attended one-to-one interviews that took place via video conferencing with a networking information advisor. During the first meeting, the participants' goals, their workplace situation and barriers to progress, options for moving forward and commitment were discussed. Based upon these discussions the networking advisor developed a bespoke list of networking suggestions, which were discussed in a second meeting. Together, these meetings supported the co-development of a Personal Development Plan (PDP) for the participant. Subsequent meetings focussed on which elements the participant wanted to explore and provided encouragement for them to take positive steps.

Activities identified on the PDPs included:

- Participation in local / regional / national network meetings and events.
- One-to-one meetings to discuss career goals and create personalised plans.
- Peer mentor / coaching sessions.
- Participating in Committees / Advisory Groups / Working Groups.
- Observing recruitment and selection panels.
- Action learning through industrial projects.
- Presenting at seminars / conferences.
- Participating in external leadership programmes.
- Providing feedback on participation on the above activities.

A personal budget of £400 was available for all participants in this activity to support them in undertaking networking activities and events.

Leadership Development
(note: at the time of writing, this activity had not yet taken place)

The aim of this one-day leadership development workshop will be to provide participants with an opportunity to reflect upon leadership styles and to develop a personal leadership narrative. Throughout the workshop participants will be encouraged to consider equality, diversity and inclusion within leadership as a recurring theme.

The workshop was originally planned to be held in-person but as a result of UK Government Covid-19 social distancing guidelines, it is planned to be held online in June 2021. Due to the changed timeline and mode of delivery, the intention is that the workshop will be facilitated by in-kind contributions from the activity lead university. The switch to an online workshop entails a different set of skills at a time when university teaching has also moved online, and staff workloads have increased so it has not been possible to hold this event during the period covered by the evaluation of the project.

The proposed benefits of the workshops are:

- Greater awareness of career development opportunities;
- Understanding of leadership styles;
- The development of a personal leadership narrative;
- An understanding of the role of diversity and leadership in teams;
- Increased confidence to act as a role model to others.

University-Industry Collaboration (UIC) Programme

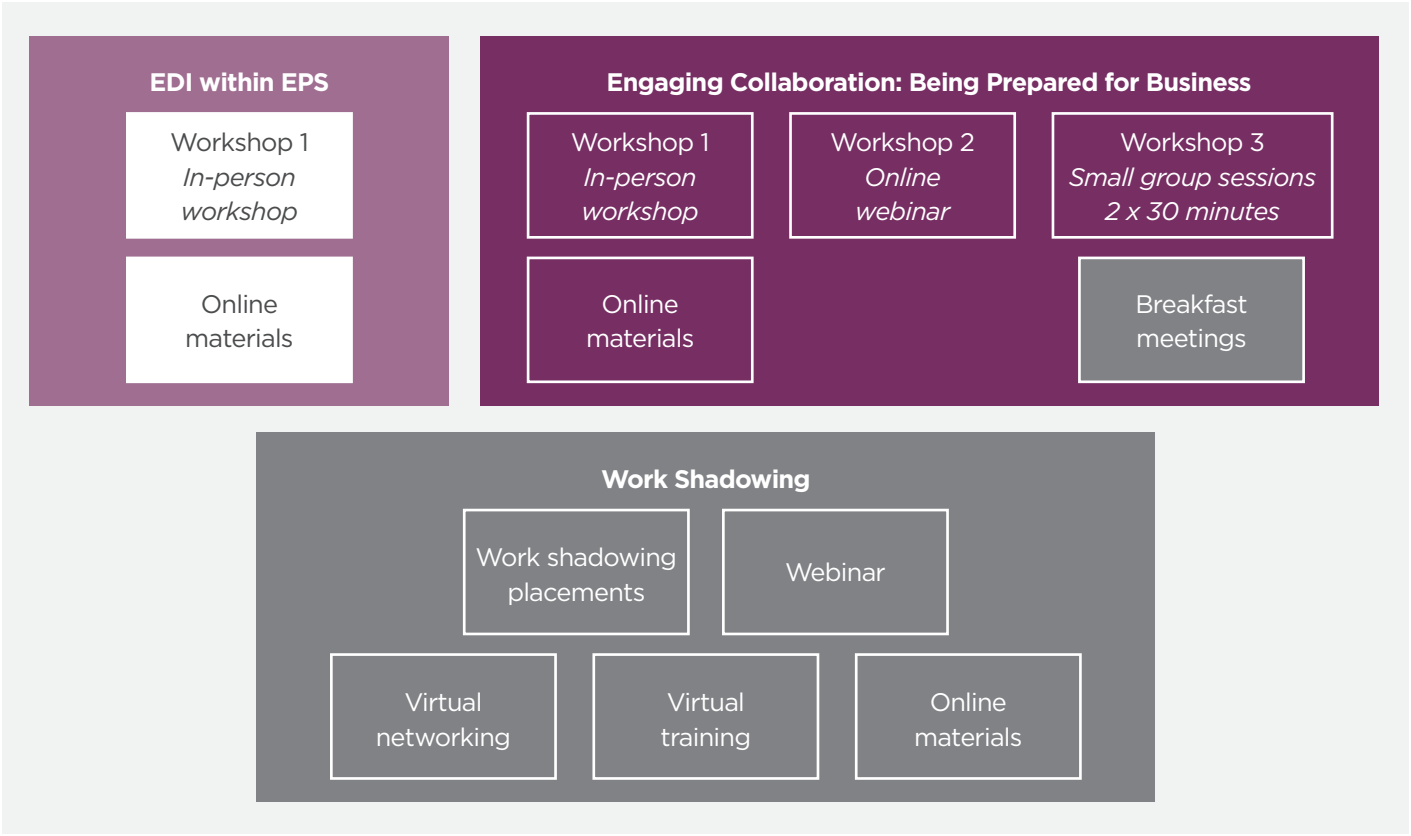
The aim of the UIC programme of activities was to facilitate future research-focussed links between individuals within industry and individuals working within HEIs. The work package activities also aimed to support the transfer of knowledge regarding positive equality, diversity and inclusion practices. The intention was to allow those involved the time to develop an appreciation of current work practices and cultures within both of the settings, to support ECR's in feeling included within their discipline community and to give them 'staying power' as a way to address the 'leaky pipeline', and to identify shared areas of interest.

The UIC programme was made up of three independent activities (Figure 1):

1. Equality, Diversity and Inclusion (EDI) within the Engineering and Physical Sciences (EPS) event.
2. Engaging Collaboration: Being prepared for Business workshops.
3. Workplace shadowing.

Participants were able to register for each activity separately and there was no requirement to attend more than one of the activities.

Figure 1. *Activities within the University-Industry Collaboration Programme. Elements shown in grey were unable to be delivered due to the impact of Covid-19.*



EDI within EPS workshop aim and activity content

This activity comprised of a **one-day event** held in-person in December 2019. **Online resources** were available via the Inclusion Matters Online Platform from June 2020. It was possible for participants to sign up to access the online materials without needing to have attended the workshop event.

The aim of the one-day event was to allow Early Career Participants from under-represented groups in Engineering and Physical Sciences (EPS), the opportunity to come together alongside EDI professionals from academia and industry and explore why equality and diversity matters for those working within these disciplines. The event aimed to cover topics such as; personal stories of progression, impact of imposter syndrome, intersectionality, influencing policies, tackling microaggression, effect of privilege and developing resilience. It aimed to allow participants to develop their awareness of EDI issues relevant to their discipline and to build their own knowledge and skills in relation to these. The design of the event aimed to provide participants with an opportunity to develop collaboration links with academic staff at other institutions and industrial representatives attending the workshop.

Engaging Collaboration: Being Prepared for Business aim and activity content

This activity originally comprised of four strands (to have been delivered as three workshops and breakfast meetings). The first workshop was able to take place as planned in-person in February 2020. However, the second and third workshops were delayed due to Covid-19 restrictions before being redeveloped for self-guided access on the Inclusion Matters Online Platform. When signing up, participants were initially requested to take part in all strands within the activity, however this requirement was relaxed to accommodate participants' other commitments.

The aim for the Engaging Collaboration: Being Prepared for Business activities within the UIC programme, was to prepare Early Career Participants (ECPs) from under-represented groups in EPS, with skills for carrying out collaborative research projects with industry. The intention was that by engaging with the multiple strands, participants would be given the opportunity to explore real industrial challenges and show how their skills can support industry. They would also develop other essential skills for industry-university collaboration such as building their personal brand, pitching and presenting skills, media preparation and confidence in the language of business. The original design for the delivery of the workshops aimed to provide opportunities for participants to share research ideas and to develop networks for future collaborations within academia and industry. Participants were asked to share their views with other participants on the day.

Workshop 1 was held in-person on 13th February 2020. It was aimed to cover "Understanding Personal Branding for Academics" to look at how building a personal academic brand can support collaboration activities and help to develop the participants' academic career.

Workshop 2 was held on 27th October 2020 and took the form of an online webinar. The topic for the session was "The academic / business relationship". The session aimed to draw on the experiences of the speaker to discuss her successful experience of engaging with business and to share insights from her experience of working in academia and with industry. The aim of the session was to share advice with participants about how to start engaging with business and to help

participants to understand the value for themselves in developing relationships with businesses. The aim was for the speaker to address questions from participants submitted prior to, and during, the webinar.

Workshop 3 was held as 2 x 90-minute sessions, held with two participants at a time in November 2020. The workshop focussed on "Preparing for Collaboration: Personal Communications Training". The aim of the workshop was to offer participants a bespoke training experience to support them in developing communication skills, to prepare them for engaging in collaborative activities with industry and with other academics. The training aimed to develop the confidence of participants in effectively talking about their skills and showcasing their 'personal brand' in a way that highlights what they can offer to a collaborative activity.

Workshop 3 was developed following feedback from industrial partners who indicated that, on the whole, they felt that academics could be better at selling themselves and making clear the ways in which their skills can translate into a business environment. In addition, project participants have identified that academics are often only offered training in promoting their work to other academics or non-technical audiences.

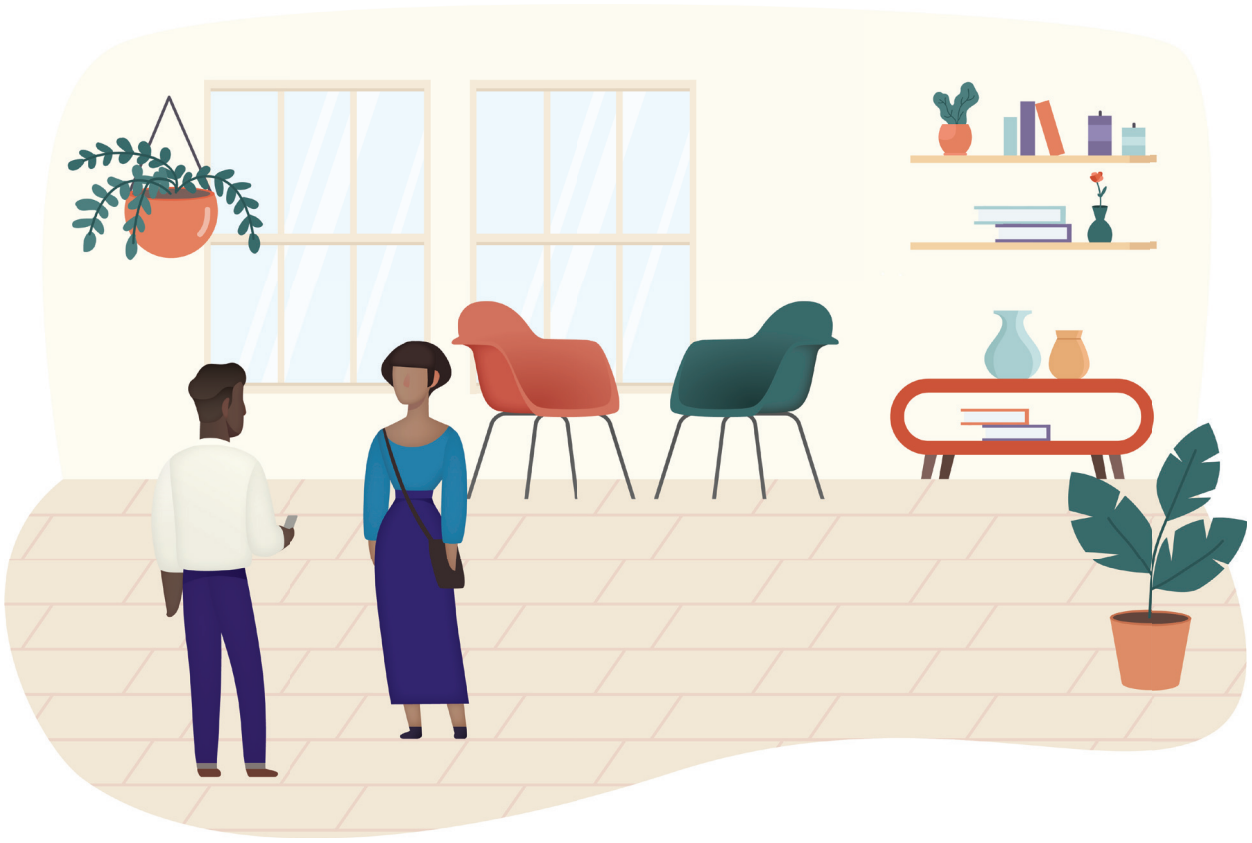
Following on from this feedback the workshop was developed in collaboration with an external trainer, to develop an opportunity for participants to become confident in talking to potential collaborators. The virtual workshop sessions were designed to take place in very small groups (two-three participants to one trainer) to ensure they could be tailored to participants' needs. The two sessions aimed to run throughout November, with each participant attending two sessions, the first to work through strategies and techniques with the trainer, and the second to further refine their skills and receive individual feedback on the ways in which they communicate their skills to experts, who may not be in their 'niche' discipline area.

Work Shadowing Aim and Programme

This activity was designed to allow ECPs from under-represented groups in Engineering and Physical Sciences (EPS) the opportunity to engage with industry to enable them to develop their industrial awareness, to explore opportunities for future industry-university research collaborations, and to observe how equality and diversity is supported within the workplace. The activities in this project were designed with the aim of supporting participants to build networks and gain exposure to opportunities, which will allow them to progress and develop their academic careers to their full potential. Due to changes in Industry commitments (due to factors including Covid-19, the UK leaving the European Union etc) this activity was adapted with an aim to prepare participants for talking to industry and to enable them to share/showcase their skillset in a way which could facilitate future collaboration.

Due to continued social distancing and working from home requirements from the UK Government, it was not possible for the Work Shadowing activity to take place. However, participants who signed up for this activity were invited to participate in the second and third Being Prepared for Business workshops.

EVALUATION RESEARCH QUESTIONS



3. Evaluation research questions

Research questions

The overarching research questions for the evaluation of the Northern Power Inclusion Matters programme were:

RQ1 *- To what extent do participants feel that their involvement in the Inclusion Matters programme will be of use to them when seeking their next career appointment or promotion?*

RQ2 *- To what extent do participants feel that their involvement in the Inclusion Matters programme will be of use to them if seeking to apply for a senior leadership role?*

RQ3 *- To what extent do participants feel more confident to apply for grants after participating in the Inclusion Matters programme?*

RQ4 *- To what extent do participants feel more valued within their university and the wider Engineering and Physical Sciences (EPS) community after participating in the Inclusion Matters programme?*

RQ5 *- Has visibility of staff from under-represented groups changed across different HE forums?*

RQ6 *- To what extent do participants feel that their involvement in the Inclusion Matters programme has given them confidence to be more involved in their discipline's community and/or a wider spectrum of work? Do participants feel their visibility within their department, university and/or discipline community has increased because of this?*

RQ7 *- Are there any changes in attitudes in industry or HEIs policies or practices relating to training, leadership, grant capture, recruitment, promotion, engaging with industry and induction, as a result of the Inclusion Matters programme?*

The implementation and process evaluation aimed to investigate:

IPE1 *- To what extent were activities within the Inclusion Matters programme delivered in line with the aims of the activity (fidelity/ quality) and how have the activities been received by participants (responsiveness)?*

IPE2 *- How many people participated in the activities within the Inclusion Matters programme and from which under-represented groups (fidelity)?*

IPE3 *- What is the perceived impact of Inclusion Matters activities for the participants (responsiveness)?*

IPE4 *- What barriers were faced by participants in implementing the advice given in the activities (quality)?*

IPE5 *- Are there any groups of participants that were not able to access the Inclusion Matters activities or advice given in the activities and why (reach)?*

IPE6 *- What issues (if any) have been encountered in delivering the activities (fidelity/quality)?*

IPE7 *- What areas of the activities could be further developed following completion of the project?*

IPE8 *- Programme differentiation.*

Each activity within the programme has been evaluated to investigate whether participants felt that the activity had achieved its original (or updated) aims.

In addition, the impact of Covid-19 on participation in the programme and the benefits and challenges of the cross-institutional nature of the programme have been explored.

Ethics statement

Ethics approval was received through the School of Education Ethics Committee at Durham University. Approval was granted in multiple stages in line with the phases of development of the programme. Initial approval for the evaluation of the programme was granted on 15/04/2019, with the final approval granted for the last element of data collection on 28/01/2021.

Agreement from participants to be part of the evaluation of the programme was collected as part of the registration process (registration and baseline questionnaire) or as part of the separate event sign up options for the University-Industry Collaboration activities. Agreement to participate in interviews was separately sought at the time of interviews.

METHODOLOGY

4. Methodology

Data collection

A mixed methods approach to data collection was adopted for the evaluation to facilitate the collection of data at different levels of detail and scale (Figure 2). Each project activity had an individually tailored data collection approach, within an overarching programme evaluation framework.

The evaluation framework was based around a Theory of Change (ToC) model for the Northern Power Inclusion Matters programme. As the programme had a broad scope and participants were able to participate in more than one activity within the programme, a high level approach to the ToC was taken. Working with the activity and overall programme teams, the high level changes that the programme aimed to make were identified, and these were then used as the focus for the research into the perceived impact for participants from participating in the programme.

Central to the whole programme, was a baseline and end of programme survey to understand the perceived impact of the programme for participants; a HEI policy and practice audit to understand whether the programme had led to change within the participating institutions; and a recruitment audit to understand the process of recruiting participants to the programme, as a whole. Interviews with the developer of the individual activities, as well as the main project leadership and management teams, were also conducted at the end of the programme. The timeline of the evaluation was adapted as the project progressed to account for changes in the programme delivery caused by the impact of the Covid-19 pandemic.

The evaluation design does not include a counterfactual group. The evaluation therefore reports the perceived impact of participation for those taking part and an evaluation of the feasibility of the programme combined with a detailed process evaluation. The experience of participating in the programme and lessons learned for the feasibility, challenges and barriers of implementing the programme and activities, are drawn from the findings and conclusions are drawn to support implementation of similar programmes in the future.

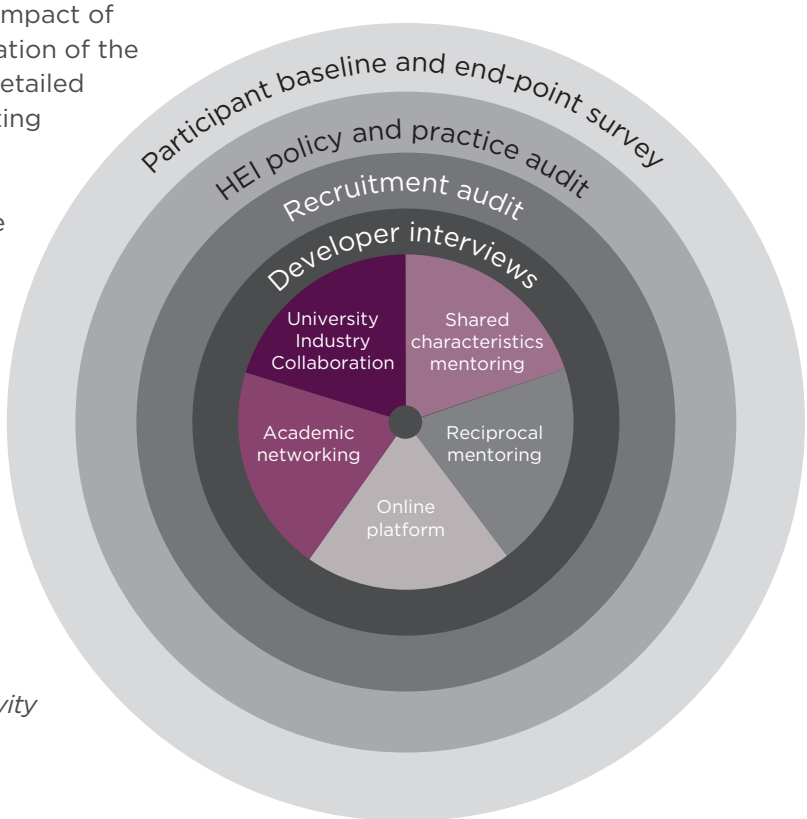


Figure 2. *Summary of data collection activities for the Inclusion Matters programme. Within each activity is an individual package of data collection.*

Baseline and end of programme survey

Baseline information about participants was collected as part of the registration process using JISC Online Surveys ((https://www.onlinesurveys.ac.uk/), JISC Bristol, UK.). The registration process consisted of two parts. Part 1 collected information about institution affiliation, preferred activities, reasons for applying and whether the respondent considered themselves as being in an under-represented group, which, as well as being available for analysis as part of the evaluation, was used by the Participant Allocation Panel (PAP) to assess an individual's eligibility for the programme and to assign participants to activities. Part 2 of the form collected information only for the evaluation. Participants were asked to provide details about experiences in their career, confidence, employment status plus personal details, such as: age, gender, disability, religion and ethnic group. All questions in Part 2 were voluntary, with participants able to decline to answer any questions for which they did not want to provide a response. The baseline survey was live from 22nd September 2019 to 30th August 2020.

An end of programme survey was sent to all participants that completed the baseline survey, whether they then accepted their place on any of the Inclusion Matters activities or not. The survey was live from 12th January 2021 to 5th February 2021 via JISC Online Surveys. Completion of the end of programme survey was incentivised with participants able to choose to enter a prize draw to win one of two £100 vouchers at the end of the survey. The survey gathered information on experiences within their roles since registration and experiences with programme activities. The questions within the end of programme survey were structured differently to the baseline survey, in order to accommodate the changes to the methods by which participants could register for the programme (a significant percentage of participants registered directly for some activities and hence baseline data were not available for these participants - see later sections for a more detailed explanation). In addition, the end of programme questions aimed to accommodate the changed timeline of the programme due to Covid-19 (i.e. there was little time for participants to act on advice from rescheduled activities and for this to have impact on their actions before the end of programme evaluation data were collected). As with Part 2 of the baseline survey, responses to questions were voluntary, with participants able to omit responses where they did not wish to give an answer.

By design, the baseline and end of programme surveys were not completed by Reciprocal Mentoring senior mentors, whose views and opinions of the activities and overall programme were instead captured through their engagement in the individual activity. For participants that joined activities directly without completing the baseline survey, additional questions were added to the end of programme survey to capture additional relevant information about their background.

Higher Education Institution policy and practice audit

A questionnaire on policy and practice was sent out by email to HEI partners in August 2019 (as a baseline) and November 2020 (follow-up) asking about: numbers of staff from under-represented groups within the science faculty; training, progression and EDI related policies and practices within the institution; and collaboration with project partners and industry. In the follow-up questionnaire, HEIs were asked to comment on whether and how any of the activities within the Inclusion Matters programme had impacted on their policies and practices within their institution.

Recruitment activity audit

Information was collected about the process of recruiting participants through periodic audit of recruitment activities at each HEI, along with a more detailed series of case studies at two institutions to understand why eligible participants may have chosen not to sign up to the programme.

Recruitment audit questionnaires were sent out by email to all HEI partners in November 2019, March 2020 and August 2020 asking about recruitment activities up to 14th November 2019 (first audit), 29th February 2020 (2nd audit) and 31st July 2020 (3rd Audit). These asked about the methods used for advertising activities to participants, who were involved in promoting recruitment at their institution, whether the centrally provided recruitment materials were used, which recruitment activities they had found worked well and where partners were aiming to try different approaches.

Shared Characteristics Mentoring

Participants (both mentees and mentors) completed the baseline survey as part of the registration process for the programme. At the end of their participation in the programme, all mentees and mentors were asked to complete the end of programme survey. Mentors were also interviewed for collecting information on the quality of training and programme implementation, along with their perspectives, motivation for participation and lessons learned from their experience. Informal interviews with the activity development and delivery team, were conducted at the end of the programme to collect information on the challenges of recruitment and experiences of matching pairs.

Reciprocal Mentoring

Junior mentors completed the baseline survey as part of the registration process for the programme. Senior mentors did not sign up through this method, and so, by design, did not complete the baseline survey. Junior mentors were then invited to complete the end of programme survey, self-reporting their experience of participating in Reciprocal Mentoring. In order to understand senior mentors' experience of Reciprocal Mentoring sessions, four senior mentors were invited to participate in informal interviews at the end of the programme.

Online Platform

Both the Northern Power Inclusion Matters programme website (northernpowerinclusion.org) and Online Platform (northernpowerinclusion.com, hosted by Webanywhere) had Google Analytics enabled to measure visits to the sites. Statistics on visits to the content for individual activities, and the guest area, were collected using the Moodle Reports Logs function.

The end of programme survey to all participants contained questions for participants about their use of, and engagement with, the platform.

At the end of the programme, an interview was carried out in December 2020 with the activity team and covered questions about the procurement process for the Online Platform software, the implementation of the website and Online Platform, and lessons learned.

Academic Networking for Career Development

Evaluation data for the Academic Networking for Career Development activity were collected through several methods. Interviews with two out of the four participants on the activity were carried out in January 2021. The interviewees were asked questions relating to their experience of the activity, to what extent it had benefitted them, and how well it had fitted their individual needs. They were also asked about any changes if the activity was to be offered outside the Northern Power Inclusion Matters programme. In addition, all participants on the activity were asked to complete the end of programme survey, which sought to understand the perceived wider impact for the participants as well as identify how well the activity had met its stated aims.

An interview with members of the Academic Networking for Career Development activity team was carried out in December 2020 and covered their experience of running the activity, its benefits to both advisors and participants, changes to original aims and ways it could be implemented in the future.

Copies of the PDP and Networking Suggestions documents of the four participants were collected.

Equality, Diversity and Inclusivity in Engineering and Physical Sciences (EDI in EPS) workshops

Evaluation data collection for the two EDI in EPS workshops included the collection of attendance data using the register of attendance on the day, in-person observation of the workshop by a member of the evaluation team, and a post-workshop online survey sent to participants three weeks after the event.

The observation of the workshops collected information on how well the content of the workshop aligned to the stated aims for the session, the participants' response to the workshop on the day, any barriers that were evident to participants being able to engage with the workshop, and any adaptions to the delivery that took place.

The post-workshop surveys explored how well participants considered the workshop to have met its intended aims, actions they had taken away from the workshop, knowledge and skills they felt they had gained, whether they intended to change their own practice or their institution's practice following attendance at the workshop, whether they considered there to be any barriers to changing practice, any elements that made the workshop different to other events they had attended, any difficulties they encountered engaging with the workshop, and finally any suggestions that they had for improving the event if it ran again in the future.

An interview was held in December 2020 with the activity development team who designed and delivered the workshops. The interview gathered their thoughts on how the activity had been implemented, how they felt it had been received by participants, particular successes in implementation, any challenges or barriers to successful implementation, and any adaptions they would make it the future.

Engaging Collaboration: Being Prepared for Business

Evaluation data collection for the Being Prepared for Business activity changed during the project, due to social distancing restrictions due to Covid-19. The final data collection included attendance data using the register of attendance on the day at each of the three events and in-person observation of the workshops (in person for workshop 1 and online for workshop 2) by a member of the evaluation team, and metrics gathered about the use of the online materials. Questions were included in the end of programme survey to gather participants' views on how the activities met the aims of the programme.

The observation of the workshops (in person for workshop 1 and online for workshop 2) collected information on how well the content of the workshop aligned to the stated aims for the session, the participants' response to the workshop on the day, any barriers that were evident to participants' being able to engage with the workshop, and any adaptions to the delivery that took place.

Post-activity questions in the end of programme survey explored how well participants considered the workshop and online materials to have met their intended aims relating to skills development, building confidence, sharing research ideas, developing networks, and exploring opportunities for collaboration with industry. They were also asked more generally whether they considered there to be any barriers to engaging with the Northern Power Inclusion Matters programme and to what extent they had used the Online Platform.

An interview was held in December 2020 with the activity development team, who designed and delivered the activity. The interview gathered

their thoughts on how the activity had been implemented, challenges to implementation, what had worked well, and any adaptions they would make it the future.

Overall programme implementation

In addition to the interviews with the developers of the individual activities, two further interviews were also held in December 2020 with the main project leadership team and main project management team. The interviews gathered their thoughts on how the programme had been implemented, challenges to implementation, what had worked well and any adaptions they would make it the future.

Data analysis

Data analysis of quantitative data had been predominantly carried out using descriptive statistics using the Jamovi[1], SPSS[2] and Microsoft Excel 2016 software packages. Qualitative data collected via interviews and open text questions in surveys and audits have been analysed thematically.

Moodle analysis of the Online Platform considered usage by course/ activity both totals and over time. Online Platform and website usage have been analysed using Google analytics including: number of visits; length of visits; and pages visited.

1. The jamovi project (2020). *jamovi.* (Version 1.2) [Computer Software]. Retrieved from https://www.jamovi.org; 2. IBM Corp. Released 2016. IBM SPSS Statistics for Windows, Version 24.0. Armonk, NY: IBM Corp.

RESULTS

5. Results

The results section presents the findings across several sections:

- **Participants (page 40)**

  Presenting detailed information about the demographics of participants and their reasons for wanting to participate in the programme.

- **Impact evaluation findings (page 56)**

  Presenting findings of the perceived impact of the programme for all participants on the programme combined.

- **Implementation and process evaluation findings (page 75)**

  Presenting findings for each individual activity within the programme, along with a section on the overall delivery of the programme.

  - Participant recruitment and the application and selection process (page 76)
  - Shared Characteristics Mentoring (page 86)
  - Reciprocal Mentoring (page 97)
  - Online Platform (page 106)
  - Academic Networking (page 115)
  - University-Industry Collaboration (page 123)
  - Overall programme differentiation for participants and challenges for participation (page 145)
  - Overall programme implementation (page 150)

Participants

Key findings:

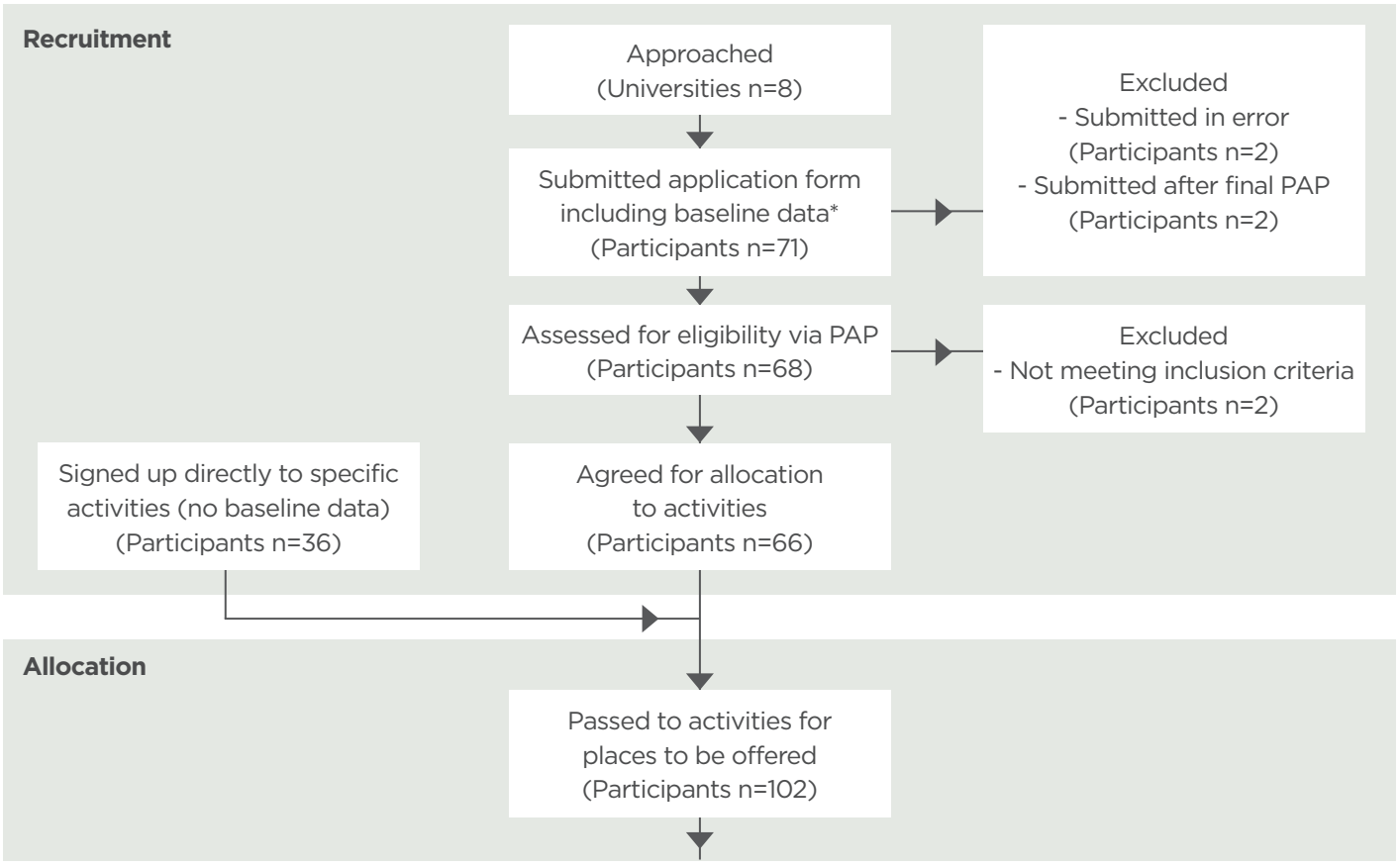
1. Overall, 107 applications were received to the Northern Power Inclusion Matters programme with 102 participants being offered a place on the programme. By the end of the period of evaluation, 78 people had participated on one or more activities on the programme.
2. Participants were from seven out of eight of the partner HEIs and five industry partners on the programme.
3. Participants were from a broad range of under-represented backgrounds with 70% of participants providing information on their personal characteristics.
4. Fifty-one out of the 78 participants took part in one activity on the programme and 27 participants took part in two or more activities.

Experience of participants at the start of the programme:

5. The activities that had been undertaken by the highest number of participants in the two years prior to the start of the programme were: presenting a conference (undertaken by 41 out of the 44 participants that provided baseline data); teaching undergraduate students (36 out of 44 participants responding to the baseline survey); and preparing a paper for submission to a peer reviewed journal as first/lead/corresponding author (34 out of 44 participants responding to the baseline survey).
6. At the start of the programme, participants that responded to the baseline survey (and considered the question to be applicable to them), reported feeling most confident to apply to present at a conference in the next year (40 out of 44 participants), followed by submitting a paper to a peer reviewed journal (37 out of 45 participants) and submitting a funding application as a Co-I (31 out of 45 participants). Participants were least confident in relation to applying for promotion (22 out of 34 participants disagreed that they felt confident in this area). The findings show that participants were more confident to undertake the activities that they had reported they had undertaken in the previous two years.
7. There was a split between participants who agreed that they were satisfied in their current role (18 out of 44 participants that completed the baseline survey) and those who reported they disagreed that they were satisfied (24 out of 44 participants that complete the baseline survey).
8. Reasons for participants wanting to take part in the programme included: hearing from colleagues in similar situations relating to balancing work with caring responsibilities; staff with a disability wanting to understand and seek advice in relation to progression and promotion; wanting to increase their confidence; wanting to share their own experience or to drive change in relation to EDI; and to help others by passing on information or being a role model for others. In addition, participants also stated their desire to take part in specific activities on the programme.

Figure 3 details the stages of recruitment of participants for the Northern Power Inclusion Matters programme. Staff at eight HEIs were approached through the methods described in the recruitment activities section below. These activities generated 107 applications to the programme, 102 of which were offered a place on one or more activities. Of the 102 participants offered a place on activities, 78 had taken part in at least one activity by the end of the evaluation period for the programme (it should be noted that due to Covid-19, the timeline of some activities had been delayed beyond the end of the evaluation period and participants were expecting to take part in the activities after the end of the evaluation). Participant flow diagrams that follow on from Figure 3 for each of the activities in the programme are provided at the start of the process evaluation sections for each of the activities.

Figure 3. *Participants flow diagram. The allocation process is shown to the point where individual activities then took on the process of contacting participants.* Note: Three participants (not included in the flow diagram) submitted the application form twice, but were only considered once.*



Forty-four participants were allocated to be offered a space on the Leadership Development activity, however, due to Covid-19, the activity is due to take place after the end of the evaluation period and hence is not included in the evaluation below. The fourteen participants that had been allocated to the Work Shadowing activity were all offered places on the Being Prepared for Business activity instead, as Work Shadowing was unable to run due to the impact of Covid-19.

In addition to the participants that were recruited through the process above, there were also 11 senior mentors as part of the Reciprocal Mentoring activity. The senior mentors on the Reciprocal Mentoring activity are not included in the analysis below due to the different process through which they were allocated to the programme and that, by design, they were not asked to complete the baseline or end of programme surveys.

The following section presents findings for the 78 participants (not including senior mentors on the Reciprocal Mentoring activity) that took part in one or more of the activities on the programme.

Institutions and organisations

Table 2 shows the breakdown of number of participants by HEI partner and Industry partners. In total 68 participants from seven HEIs and nine participants from five industry partners participated in the programme, along with one participant from an unknown organisation.

Table 2. *Number of participants from different HEI and industry partners.*

Type of organisation	Number of participants
HEI 1	29
HEI 2	14
HEI 3	12
HEI 4	7
HEI 5	3
HEI 6	2
HEI 7	1
Total HEI participants	**68**
Industry 1	3
Industry 2	2
Industry 3	2
Industry 4	1
Industry 5	1
Total industry participants	**9**
Unknown	1
Total unknown participants	**1**

Activities

The majority of participants took part in a single activity as part of the Northern Power Inclusion Matters programme. Table 3 details the breakdown of the number of activities that participants took part in, showing that 27 out of 78 (35%) took part in more than one activity (including the Online Platform). As all participants were offered access to the Online Platform, it is useful to consider the number of activities participants took part in, in addition to the Online Platform. In this case, 15 out of 73 participants (21%) took part in more than one activity (five participants only used the Online Platform as part of the programme). Table 4 shows the breakdown of the number of activities participants took part in, by activity.

Table 3. Number of activities participants took part in (with and without the Online Platform). Note: Five participants were only registered for the platform and no other activity.

Number of activities	No. participants (when the Online Platform is included)	No. participants (when the Online Platform is excluded)
1	51	58
2	12	10
3	12	4
4	2	1
5	1	0

Table 4. *Number of activities participants took part in split by activity (Online Platform participation not included). Note the three workshops within the Being Prepared for Business (BPB) activity are included as a single activity.*

Number of activities	1	2	3	4	% participating in more than one activity
Shared Characteristics mentoring (mentee)	6	3	0	1	40
Shared Characteristics mentoring (mentor)	6	3	1	0	40
Reciprocal Mentoring (Junior mentor)	2	4	4	1	82
Academic Networking	0	1	2	1	100
EDI in EPS Event	24	1	1	0	8
BPB Workshops	20	8	4	1	39

Participant characteristics

Participants were asked in two separate questions about their personal characteristics. In one question (Table 5 below), the participants selected which under-represented groups they identified with. In the second set of questions, the participants provided detailed demographic information. Depending upon where the participants reported the data, there are slight differences in the totals for some categories. In some cases, the open text responses were able to highlight the reasons for this, for example, some participants being unsure whether their health condition was classed as a disability. The first question (Table 5) was also included on the short registration form for those who signed up directly to the project for the EDI in EPS event. The responses to this question therefore offer the more complete data set, and so have been used in the analysis below. Intersectionality of participants is shown in Table 6.

Table 5. *Under-represented groups which participants identified with. Note, participants could select more than one characteristic (N=78). Where there were more than zero but fewer than five participants reporting a characteristic, this is reported as <5, to preserve anonymity.*

Under-represented group	No. participants
Black Asian and minority ethnic (BAME)	19
Disabled	<5
LGBT+	6
Woman	35
Other	10
None of the above	8
Unknown (no data)	21

Table 6. *Intersectionality of participants' under-represented characteristics (N=78).*

No. of under-represented characteristics	No. participants
Unknown (no data)	21
0	10
1	27
2	15
3	5

Seven out of the 53 participants that provided a response about their sexual orientation stated that they did not identify as either heterosexual or had preferred not to say. Due to the small numbers within each sub-category, it is not possible to provide a more detailed breakdown of the data.

There was a roughly even split of participants on permanent/non-fixed term contracts and fixed term contracts (Table 7). Data is not available for 25 participants as this data was not collected in the registration form for those directly applying to attend the EDI in EPS and Being Prepared for Business activities. The Northern Power Inclusion Matters programme was predominantly aiming to recruit participants in their early career stage for the majority of activities, other than as Shared Characteristics Mentors. The data show that 40 out of the 78 participants were in their early career stage (Table 8).

Table 7. *Contract type for participants on the programme.*

Contract type	No. of participants
Permanent/Non Fixed-term	26
Fixed-term	22
Other	3
Prefer not to say	2
Unknown (no data)	25

Table 8. *Career stage of participants on the programme.*

	No. of participants
Early career	40
Established career	15
Other	2
Unknown (no data)	21

Participants had been at their current institution on average 5.6 years, although there was a large spread of responses (max 35 years to min 0 years). On average participants had been in their current role for 2.58 years and had spent 4.68 years in the early career stage (Table 9). Fifteen of the 45 participants that provided information had taken a career break since starting work in Higher Education and 19 had worked outside Higher Education for a period of time.

Table 9. *Mean number of years that participants had been at their current institution, in their current role and in the early career stage.*

	N	N Unknown (no data)	Mean (years)	Standard Deviation (years)	Maximum (years)
Years at current institution	45	33	5.6	6.53	35
Years in your current role	45	33	2.58	2.85	10
Years in early career Stage	53	25	4.68	4.4	20

Only a small number of participants reported that they had taken part in activities similar to those on the programme before (Table 10).

Table 10. *Whether participants had previously participated in activities of this sort before taking part in the Northern Power Inclusion Matters programme (N=78).*

Activity	Yes	No	Unknown (no data)
Shared Characteristics Mentoring (as a mentor)	5	40	33
Shared Characteristics Mentoring (as a mentee)	5	40	33
Reciprocal Mentoring (as a Junior Mentor)	2	43	33
Leadership Development Workshop	6	39	33
Networking for Career Development	7	38	33
University-Industry Collaboration – Work Shadowing	1	44	33
University-Industry Collaboration – workshops or events	4	41	33

Professional development/progression related activity

Participants were asked about a selection of professional development related activities that they had undertaken in the two years prior to the start of the programme. Responses were available for 44 participants.

Of the 44 participants providing responses to the baseline survey, 16 participants reported that they had applied for or had been nominated for promotion in the last two years with 14 reporting that they had not applied/been nominated (no response was available for 34 participants). Of the 16 that had applied/been nominated, 9 applications had been successful.

Thirty-four participants reported having prepared a paper for submission to a peer reviewed journal as first/lead/corresponding author in the last two years (3 participants reported that they had not and 7 reported that they had been a Co-Author). Of the 34 that had prepared a paper, 32 had submitted the paper and for 25 the paper had been successfully accepted for publication with four awaiting a decision.

Twenty-five participants had published/presented in media such as newspapers, magazines or television, or regularly used media/social media (e.g. Twitter, LinkedIn) to disseminate information about their work in the last two years.

Forty-one participants had applied to present at a conference in the last two years and all had been successfully accepted.

Twenty-six participants reported that they had submitted a grant application/ fellowships/ scholarship/ award where they were Principal Investigator (PI) in the last two years. Seventeen reported that they not submitted an application. Thirteen of the 26 that had submitted an application had been successful, nine had been unsuccessful and four preferred not to say.

Participants were asked about whether they had participated in particular activities within the last two years (Table 11). The activity that had been undertaken by the highest number of participants was teaching undergraduate students (36 participants). Line managing a member of staff (10 participants) and being a member of a faculty/university committee (15 participants) were the activities which the lowest number of participants reported that they had undertaken in the last two years.

Table 11. *Number of participants reporting having undertaken particular activities in the last two years (N=78).*

In the last two years have you ...	Yes	No	Not eligible	Not applicable	Prefer not to say	Unknown (no data)
Been a member of a department committee?	16	24	1	4	0	33
Been a member of a faculty/university committee?	15	26	1	3	0	33
Been involved in interviewing job applicants?	21	21	1	2	0	33
Line managed a member of staff?	10	29	3	3	0	33
Presented at an internal seminar to peers?	30	13	0	2	0	33
Supervised PhD students?	28	13	2	2	0	33
Supervised Masters students?	30	12	1	2	0	33
Taught undergraduate students?	36	9	0	0	0	33
Been part of an industrial collaboration?	23	21	0	1	0	33
Participated in any other discipline-related activities outside Higher Education?	30	13	0	1	1	33

Confidence

Participants were asked to rate their level of confidence in relation to professional development/progression activities on a scale of 1 to 10. Table 12 summarises the number of participants giving scores to the disagree and agree ends of the scale. The data show that from the participants that completed the baseline survey question and that considered that the question was applicable, participants felt most confident to apply to present at a conference in the next year (40 out of 44 participants), followed by submitting a paper to a peer reviewed journal (37 out of 45 participants) and submitting a funding application as a Co-I (31 out of 45 participants). There was a mixed response to the level of confidence of participants in relation to submitting a funding application as PI (18 out of 43 agree, and 14 out of 43 disagree). Participants were least confident in relation to applying for promotion (22 out of 34 disagree). This finding corresponds to the activities that participants reported they had undertaken in the previous two years.

Table 12. *Participants' confidence in carrying out a range of profession development/progression related activities (N=78).*

	Disagree (1-4)	Agree (7-10)	Not applicable	Prefer not to say	No response
I feel confident to apply for promotion in the next year	22	7	9	2	33
I feel confident to submit a paper to a peer reviewed journal in the next year	3	37	0	0	33
I feel confident to submit a funding application as PI in the next year	14	18	2	0	33
I feel confident to submit a funding application as Co-Investigator in the next year	9	31	0	0	33
I feel confident to apply to present at a conference in the next year	1	40	0	1	33
I feel confident to liaise with industry	13	25	2	0	33
I feel confident to be open with my colleagues about my protected personal characteristics	8	25	1	0	33

Visibility, support and collaboration

Participants' perceptions relating to the visibility of their work within their department and field indicated that there was a split between participants (Table 13). Roughly equal numbers felt that their work was (16 participants) and wasn't (14 participants) visible within their department, with a slightly higher number considering that their work was visible within their field (26 participants) compared to not being visible (19 participants).

The majority of respondents to the survey considered that their institution valued and supported collaboration with industry, and that they felt confident that working with industry would support their career.

Table 13. *Participants' perceptions relating to visibility and support within their department, institution and field (N=78).*

	Disagree (1-4)	Agree (7-10)	Not applicable	Prefer not to say	No response
I feel my work is visible within the department	14	16	2	0	33
I feel my work is visible within my field	19	26	1	0	33
I feel my institution values collaboration with industry	5	44	2	1	33
I feel my institution actively supports collaboration with industry	6	36	0	1	33
I feel confident that working with industry could support my academic career	6	44	3	0	33

There was a split between participants' perceptions relating to the number of people they were working with (Table 14). Sixteen participants agreed that they worked with a large number of colleagues in their institution, with 22 participants considering that they worked with a large number outside their institution. However, 10 participants disagreed that they worked with a large number of colleagues within their department, and 19 disagreed they worked with a large number of colleagues outside their institution.

There was also a split between those who agreed that they were satisfied in their current role (18 participants) and those who reported they disagreed that they were satisfied (24 participants).

Participants mostly agreed that they worked with colleagues that they perceived to have similar career aspirations to themselves (36 agree, 12 disagree). There was a split between those who felt that they worked with colleagues who had the same personal characteristics as themselves (15 agree, 19 disagree).

Table 14. *Participants' perceptions relating to who they work with and their satisfaction in their current role (N=78).*

	Disagree (1-4)	Agree (7-10)	Not applicable	Prefer not to say	No response
I work with a large number of colleagues within my institution	10	16	2	0	33
I work with a large number of colleagues outside my institution	19	22	1	0	33
I am satisfied in my current role	24	18	0	0	33
I work with colleagues who have the same protected personal characteristics as me	19	15	6	1	33
I work with colleagues who I perceive to have similar career aspirations as me	12	36	2	0	33

Reasons for wanting to participate

As part of the application process, applicants were asked to provide a statement of up to 1500 characters in the registration form, explaining why they were interested in participating in the programme and/or specific activities within the programme. This information was primarily collected to aid the Participant Allocation Panel (PAP) selection process for allocating applicants to activities.

As part of the evaluation, the statements have been thematically analysed. Two categories of themes have emerged. The first set of comments within statements reflect the lived experience of staff from under-represented groups in Engineering and Physical Sciences (EPS) departments, with the second set directly relating to the activities offered.

Themes not directly related to an activity

Caring Responsibilities - Several respondents referred to difficulties in their career because of career breaks and caring responsibilities. They hoped to hear from other people in similar circumstances and to discuss career development balanced with caring responsibilities.

"Having had two period of maternity leave whilst working as a postdoctoral researcher, I feel I am behind and that I need to play catch-up to my peers. I'm interested to hear about whether other mothers in a similar position (i.e. employed on fixed term, temporary contracts), have managed to carve an academic career."

"I am struggling to develop my career due to caring responsibilities."

Disability - Respondents with a disability reported feeling that they had extra barriers in their career and wanting to understand more about the system and seek advice, particularly in relation to progression and promotion.

"There is no mentoring and leadership programme in the UK tailored for disabled researchers or academics. Academic ableism is the largest barrier I face in progressing my career - I feel no discrimination or barrier to my career from being a BAME female (even pre-disability). Disabled researchers often get stuck at the top of a research grade unable to progress to the next one. Disabled researchers/academics are judged against the same metrics as abled researchers with no accounting for the impact of disability and ableism in their performance. A tailored mentoring and leadership programme to advise disabled researchers on how to navigate their institution and research funders ableist funding, recruitment and promotion procedures would be of a huge advantage. Furthermore, disabled academics should be made available to mentor those that are not yet tenured."

"I realise my disability, [name of disability], has held me back in promotion and progression into senior management, and so I seek a mentor in Senior Management who can advise on how to overcome the barriers to further career advancement brought by my disability"

Confidence - Several respondents referred to wanting to increase their confidence by participating on the programme.

"Over the last few years I have struggled with both confidence and feeling that I do not belong/fit within Engineering."

"I would like to be more confident in my own research"

"I hope to obtain confidence as a research engineer"

"I recognise now that some of the reasons for me leaving academia initially could be linked to Imposter Syndrome (including being a woman in a male dominated environment, and having a less scientific focus to my PhD whilst working within Engineering)."

EDI - Many respondents raised the issue of a lack of diversity in their departments and some highlighted their work in this field or their ambition for a more inclusive future. Themes relating to wanting to drive change through direct action or sharing their experiences were evident.

Sharing experience

"The academic community provides an extremely diverse and accepting environment, with [name] university providing an excellent LGBT staff network with regular events and networking. However within my own department I remain one of few LGBT members. This means I get a lot of questions regarding LGBT issues, but also still find myself discussing why rights for women are still required."

"I was successful in achieving change in the University's Trans and Non-Binary student policy by engaging with the appropriate stakeholders. A working group on trans and non-binary issues was set up because of the effort I put towards getting senior stakeholders to recognise and correct the issues and inequalities at hand."

"As one of the minority early career researchers, unfair treatment and opportunity still exist in the EPS community."

"I am acutely aware of how some groups can be excluded in decision-making processes, whether in research or administration/leadership. In addition, I learned that some research groups, activities, or even funding can be quite cliquey, and I have had to learn how to succeed in spite of that."

"I share a believe that inclusive communities are more productive and happy and as an early career researcher, foreign and female I do know from my experience that both industry and academia are very non-uniform with respect to degree of inclusiveness and opportunities provided to junior members of communities."

Driving change

"I hope to drive change for under-represented groups with ambition for impacting cultural change both within the university and out with."

"I would like to set up bi-monthly EDI coffee chats with RAs (and academics), where we can share info, experiences and support each other, as well as invite EDI 'experts' to lead dialogue sessions at our School."

"Identifying connections between industry engagement and EDI work would be particularly insightful as I am at a career stage where I am developing collaborations and research directions that may set a trajectory for a significant portion of my career. Having engaged with previous EDI institutional committees at a departmental and staff network level, I am also keenly aware that there is a great deal of coalition building to be done around diversity across under-represented groups, particularly in getting concrete actions taken by institutions to address equity and access without placing additional burdens on individuals who are members of the under-represented groups those actions are aimed at."

Helping others - Many of those completing the survey expressed an interest in passing on what they had learned and to be a role model for others.

"I have always wanted to have the skills and knowledge to be able to support, encourage and motivate other women from all backgrounds through my experience. Thus, as well as enhancing my own career development opportunities, this chance would equip me with the knowledge and experience to support others in the future."

"I will be able to promote a positive experience to individuals who wish to follow a similar career path as myself. Additionally, I hope to drive change for under-represented groups with ambition for impacting cultural change both within the university and out with."

"One of the main reasons for the gender gap is a lack of role models, so I would like to be a role model who passes on their experience and knowledge, and shares excellence and good practice."

"Additionally, I am aware of the challenges faced by women and BME minorities in STEM, and I am therefore eager to help more junior colleagues to pursue their dreams for a career in academia."

"Thus, as well as enhancing my own career development opportunities, this chance would equip me with the knowledge and experience to support others in the future."

Themes directly related to an activity

Being a mentor - These respondents were mainly in an established career position, who identified with at least one under-represented characteristic. Their statements referred to their experiences being in a minority.

"It was also difficult as a young woman in [EPS discipline] because there were no, more senior, female role models to ask for advice."

"I am a [..] woman, mother and [EPS career] working in a male dominated field of research, and I have encountered many challenges during my career."

"I am autistic. I have experience of how this has affected my career over many years."

They also described the impact being mentored has had on themselves and their career

"As a mentee, I was able to freely discuss my career aspirations with a senior academic, who was independent from my postdoctoral post and duties. I benefited from advice and guidance from my mentor, who was very generous about sharing previous experiences and the way in which both success and failure help you shape your future achievements."

"When I was a graduate student, I participated in a mentoring scheme as a mentee. This experience has been very helpful for me to understand my ambitions and goals and to understand how a career in academia might work."

"I have benefited greatly of having fantastic mentors that helped me and support me to identify the paths that worked best for me, in order to achieve my professional ambitions, while considering my own well-being and family commitments. I am grateful for the clarity I have gained from the advice given by those mentors to invest my energies and time in those activities that have helped me the most to advance in my career."

Because of their own experiences many felt that they needed to provide an opportunity for other, less experienced researchers to have experience of being mentored.

"I am interested in taking part in this scheme to provide support to potential mentees. … It is my belief that there is a duty to disseminate our science and support others who share the same scientific passions."

"I have gained much from mentoring relationships as a mentee, and would like to provide the same in the opposite relationship."

"I am interested in giving back and supporting my community."

"I think that it is my responsibility to give back to others if possible. If my professional and personal experiences might be of help to others to identify what might work best for them to overcome the challenges encountered in academia, I will be more than happy to help."

"I would like to participate as I would like to help a younger person in a similar situation, where they are the minority, to find confidence in their working environment and perhaps provide some of the support I would have so appreciated when I was younger."

Others mentioned that there would be benefits for themselves as well as their potential mentees.

"This new opportunity will give me the chance to continue learning from a similar scheme and to help others who may face similar challenges when coming into academia from an ethnic minority background."

"I find it interesting in identifying together what unique is for a person's expertise/skills and how to use this in making a career. So gain for me will be satisfaction to support others."

"Diversity is very important in the UK academia and I hope I, as a mentor in the BAME group, can have more practical face-to-face time via this scheme so that I can improve my communication skills which are essential for mentoring and teaching students with diverse backgrounds."

Being a mentee - Respondents who wished to take part in the mentoring activity were interested in being mentored by someone outside their department but one who shared an understanding of their experiences.

"I have been searching for an opportunity to find mentor within my organisation but outside of my group. The external mentoring programme interests me greatly as it may provide me insight into how I can navigate the academic landscape to make better use of my opportunities."

"I feel there are limited opportunities of mentorship with those whom a share similar characteristics and could provide advice at navigating academia."

"...a chance to express the difficulties faced being a female ethnic minority in the [EPS discipline]. I hope to obtain confidence as a research [EPS career] from interaction, gaining skills and knowledge from mentors."

"I feel I would benefit from a mentor outside my institution."

"As a Muslim BME woman, I am seeking guidance, support and advice from Established Careers Researchers within similar multidisciplinary research fields to help me navigate the challenges associated with being a woman in STEM and with my career development."

Leadership - There were two elements of leadership that respondents were interested in. One was learning leadership skills and the second was related to discovering and developing their own leadership style.

Leadership Skills

"I feel that my leadership skills need developing so that I may confidently lead teams and projects in a discipline that is usually dominated by males."

"Leadership skills would allow me to feel more confident about leading projects."

Developing own leadership style

"Knowing more about my leadership style, different leadership approaches and being more aware of what I try to achieve and how I do this, would help me to do my work more effectively which will positively affect others."

"I am hoping that this project will help to improve confidence for leading teams, gain greater understanding of my personal leadership style, and how my background and experiences shape this."

Networking - Respondents were interested in finding ways to connect with others.

"I feel it is important at this stage to build my network of contacts, something which I often find difficult."

"With participating in the networking events, I hope to see career channels which haven't previously been presented and access to peer support networks."

"...would potentially strength my academic networks, and enlighten me with opportunities to learn how to gain funding as an early career academic."

"This would hopefully benefit me through career development, strengthening academic networks and to learn more about collaborative funding"

"While I feel that I am quite good at meeting people, I don't feel that I am able to develop that connection into a meaning networking connection that has the possibility to help my career."

Industry - There was a great interest in working with industry. Some wanted the opportunity to start to collaborate with industry whilst others had already made connections and wanted to expand them. Other respondents were looking at the Academic /Industry collaborations as a help for them to decide whether to stay in academia or move to industry.

Collaboration

"I have had little interaction with industry here in the UK and I believe that bridging this gap can significantly increase my confidence in my ability to lead independent research and build collaborations with industrial partners in the future."

"...activities that would allow me to become more visible to industry would be very crucial for my career development."

"The University Industry partnership-work shadowing would provide the opportunity for me to marry my theoretical and practical ideas to industry concerns."

"I have failed already in approaching industry for partnerships with the university, so it really essential for me to acquire the required skills and knowledge in order to see my mistakes."

"My work involves collaboration with industrial and clinical contacts, and while I have begun to make these connections already, I may benefit from more structured approaches to strengthen these relationships or find new ones."

Career options

"Moreover, as I'm still wondering whether to stay in academia or work in industry, having access to university industry partnership would be really beneficial to me to get a clearer picture of both arenas and make a better decision."

"I am particularly keen in learning about career options (i.e. staying in academia or moving to industry)."

In general, the programme recruited participants from a broad range of under-represented backgrounds from almost the full breadth of partner HEIs (one HEI had no participants on the programme). A range of industrial partners were also able to join as part of the programme. Participants showed a clear interest in wanting to take part and had a range of reasons for taking part.

Although there were areas where the majority of participants highlighted that they were already confident and active at the start of the programme, there were several areas with potential for the programme to have impact on. Based on the experience of the participants at the start of the programme these included: building participants' confidence in relation to submitting applications for promotion, confidence for submitting grant applications as PI; and supporting participants to increase their satisfaction in their role.

Impact evaluation findings

Key findings:

Application for promotion

1. Overall, of the 27 participants that responded to the end of programme survey (and for whom submitting an application for promotion was relevant), 14 considered that participating in the programme had already, or would help them in the preparation of an application/nomination for promotion in the future.
2. When asked whether participating in the programme had impacted on their confidence to apply for promotion in the next year, 15 of the 31 participants that completed the survey (and for whom applying for promotion was applicable) reported that it had increased their confidence, with a further 15 reporting it had led to no change in their confidence. It is important to note that these are self-reported responses in the end of programme survey and are not an independent measure of confidence change.

Application for senior leadership positions

3. Overall, of the 28 participants that responded to the end of programme survey (and for whom submitting an application for senior leadership was relevant), 17 considered that participating in the programme had already, or would help them in the submission of an application in the future.
4. When asked whether participating in the programme had impacted on their confidence to apply for promotion in the next year, 16 of the 31 participants that that had completed the end of programme survey (and for whom applying for a senior leadership position was relevant) felt that the programme had increased their confidence with 14 participants feeling that it had led to no change.

Submitting grant applications

5. Overall, of the 30 participants that responded to the survey (and for whom submitting a funding application was relevant), 14 considered that participating in the programme had already, or would help them in the submission of an application for a grant/fellowship/scholarship/award where they were Principal Investigator (PI) in the future.
6. When asked whether participating in the programme had impacted on their confidence to submit a funding application as PI in the next year, 13 of the 29 participants that responded to the end of programme survey (and for whom the question was relevant) reported that they felt their participation in the programme had increased their confidence to submit a funding application as PI in the next year, with 16 participants reporting that it had made no change to their confidence. In relation to submitting an application as a Co-I in the next year, 15 participants reported that it had increased their confidence to submit an application as a Co-I, with 14 reporting no change.

Value and visibility

7. Nineteen out of the 34 participants that responded to the end of programme survey (and for who increasing visibility of their work was applicable) agreed that participating in the programme had enabled them to make their work more visible within their department.
8. Nineteen out of the 32 participants that responded to the end of programme survey (and for whom it was applicable), felt that participating in the programme had led to them increasing the number of colleagues they worked with outside of their institution.
9. Twenty-one out of the 38 participants that responded to the end of programme survey stated that they agreed that they were satisfied in their current role, with 14 stating that they disagreed.
10. Twenty out of the 35 participants that responded to the end of programme survey (and that considered the question to be applicable to them) reported that participating in the programme had increased their confidence to be open with their colleagues about their protected characteristics. Fourteen participants reported that it had not changed their confidence.
11. Twenty out of the 36 participants that responded to the end of programme survey (and that considered the question to be applicable to them) felt that participating in the programme had led them to feel more valued in the wider engineering and physical sciences community.

Changes at an institutional level

12. Areas which have been directly influenced in one or more partner HEIs as a result of participating in the programme included: knowledge sharing relating to EDI initiatives; identification of institutional gaps in training needs of ECRs; prioritisation of EDI training and online provision as a result of discussions around what was available at other partner HEIs; roll out of training courses based on the provision within the programme; review of induction processes; development of Race Equality Charter action plans linked to work in the programme; review and development of staff and student recruitment processes to improve inclusion practices; expanding mentoring provision based on the provision within the programme; and working together to submit further EDI related projects.
13. Change for HEIs in relation to collaboration with industry partners had mostly been felt by the HEIs leading activities with direct involvement of industry partners within their activities. For the industry partners, their involvement was predominantly through Reciprocal Mentoring and the University-Industry Collaboration activities. Collaboration outside these activities has been mostly present through individual contacts made as part of these activities.
14. The project led to changes in practices in some HEIs but had not yet reached a stage of impacting on policy. Although some HEIs reported that policies had changed during the period of the project, these were changes that were already in the pipeline.

The following section presents the findings of the impact evaluation (investigating the perceived impact of participating in the programme for both participants and HEIs), which considered six research questions:

RQ1 *- To what extent do participants feel that their involvement in the Inclusion Matters programme will be of use to them when seeking their next career appointment or promotion?*

RQ2 *- To what extent do participants feel that their involvement in the Inclusion Matters programme will be of use to them if seeking to apply for a senior leadership role?*

RQ3 *- To what extent do participants feel more confident to apply for grants after participating in the Inclusion Matters programme?*

RQ4 *- To what extent do participants feel more valued within their university and the wider Engineering and Physical Sciences (EPS) community after participating in the Inclusion Matters programme?*

RQ5 *- Has visibility of staff from under-represented groups changed across different HE forums?*

RQ6 *- To what extent do participants feel that their involvement in the Inclusion Matters programme has given them confidence to be more involved in their discipline's community and/or a wider spectrum of work? Do participants feel their visibility within their department, university and/or discipline community has increased because of this?*

RQ7 *- Are there any changes in attitudes in industry or HEIs policies or practices relating to training, leadership, grant capture, recruitment, promotion, engaging with industry and induction, as a result of the Inclusion Matters programme?*

As presented earlier in the report, 35% of participants took part in more than one activity (including the Online Platform) within the Northern Power Inclusion Matters programme. Some of the activities also (by design) had smaller numbers of participants. Therefore, the analysis below considers the responses of all participants on the programme as a whole. The implementation and process analysis later in the report then considers participants on each activity individually.

Respondents to the end of programme survey

Response rates from participants across the different activities are shown below in Table 15. The lower response rates from the EDI in Engineering and Physical Sciences (EPS) event are not unexpected, as the event took place over one year before the end of programme survey was sent out to participants. However, for this activity a post-event survey was completed by participants three weeks after the event. The findings from this survey are discussed in detail in the EDI in EPS section. Overall, responses to the end of programme survey were received from 49% of participants.

***Table 15**. Response rates from participants to the end of programme survey broken down by activity (Total number of participants = 78, note that participants could participate in more than one activity).*

	Completed survey (N)	Did not complete survey (N)	Total participating in activity (N)	End of programme survey response rate (%)
Shared Characteristics Mentoring (Mentor)	8	2	10	80
Shared Characteristics Mentoring (Mentee)	7	3	10	70
Reciprocal Mentoring (Junior mentor)	9	2	11	82
Online Platform (based on survey responses)	22	8	30	73
Academic Networking for Leadership	2	2	4	50
EDI in EPS Event	11	15	26	42
BPB Workshops	12	21	33	36

RQ1 - Do participants feel more confident to apply for promotion after participating in the Inclusion Matters programme?

Participants were asked whether they had applied for or been nominated for promotion since they registered for the Northern Power Inclusion Matters programme. Six participants of the 27 that had completed the end of programme survey (and that considered themselves eligible for submit an application, and for whom submitting an application was applicable) reported that they had applied for or been nominated for promotion, with 21 stating that they had not applied or been nominated. Of the six that had applied, three had been successful in being promoted and one was waiting to hear the outcome.

Four of the six participants that had applied for promotion considered that taking part in the programme had provided a small amount of help in the preparation of their application. Of the 21 that had not applied or been nominated for promotion, 10 considered that taking part in the programme would help them with the preparation of an application/ nomination for promotion in the future, with seven stating that they considered it would not help. Overall, of the 27 participants that responded to the survey and for whom submitting an application was relevant, 14 considered that participating in the programme had already, or would help them in the submission of an application.

When asked whether participating in the programme had impacted on their confidence to apply for promotion in the next year, 15 of the 31 participants that completed the survey (and for whom applying for promotion was applicable) reported that it had increased their confidence, with a further 15 reporting it had led to no change in their confidence (Table 16).

***Table 16**. Participants' responses to the question "to what extent do you feel your participation in the Inclusion Matters programme has impacted on your confidence to apply for promotion in the next year" (N=78).*

Increased confidence a lot	Increased confidence a little	No change	Decreased confidence a little	Not applicable	Unknown (no response)
8	7	15	1	7	40

Participants were also asked to what extent they felt that their participation in the Inclusion Matters programme had impacted on their confidence across several other areas (Table 17). The greatest increase in confidence was reported in relation to being involved in interviewing job applicants, where 22 out of 38 participants that completed the end of programme survey considered that participating in the programme had increased their confidence.

***Table 17**. Participants' views as to what extent they felt participating in the Northern Power Inclusion Matters programme had impacted on their confidence in several areas (N=78).*

	Increased confidence a lot	Increased confidence a little	No change	Decreased confidence a little	Not applicable	Unknown (no response)
be a member of a department committee?	9	9	15	1	4	40
be a member of a faculty/ university committee?	7	10	16	1	4	40
be involved in interviewing job applicants?	9	13	12	0	4	40
line manage a member of staff?	4	8	16	1	9	40
present at an internal seminar to peers?	10	6	19	0	3	40
supervise PhD students?	4	8	17	0	9	40
supervise Masters students?	3	9	17	0	9	40
teach undergraduate students?	5	3	22	0	8	40
be part of an industrial collaboration?	7	10	16	0	5	40
participate in any other discipline-related activities outside Higher Education?	8	7	17	1	5	40

Eighteen participants from the 38 that completed the end of programme survey considered that participating in the programme had increased their confidence to be a member of a department committee, with 17 reporting increased confidence in relation to being a member of a faculty/university committee or to be part of an industrial collaboration.

In general, the programme appears to have provided some support to increase participants' confidence in areas which will support their longer-term promotion prospects, however, this was not necessarily the case for all participants. The increased confidence has not yet had time to work through to participants submitting applications for promotion, with this still only having been carried out by a small number of participants.

RQ2 - Do participants feel more confident to apply for a senior leadership role after participating in the Inclusion Matters programme?

Participants were asked whether they had applied for or been nominated for a senior leadership role since registering for the Northern Power Inclusion Matters programme. Five out of the 38 participants that had completed the end of programme survey (and that considered themselves eligible to submit an application, and for whom submitting an application was applicable) reported that they had applied, with 22 participants reporting that they had not applied.

Of the five participants that applied or had been nominated for promotion, four reported that participating in the programme had helped in the preparation of their application. Four out of the five participants that had applied had been successful, with one participant awaiting the outcome. Of the 22 who reported that they had not applied for/been nominated for a senior leadership role, 13 participants felt taking part in Inclusion Matters would help them with the preparation of an application/ nomination for a senior leadership role in the future. Overall, of the 28 participants that responded to the survey and for whom submitting an application for senior leadership was relevant, 17 considered that participating in the programme had already, or would help them in the submission of an application.

Participants were asked to what extent they felt that their participation in the Inclusion Matters programme had impacted on their confidence to apply for a senior leadership role, 16 of the 31 participants that that had completed the end of programme survey (and for whom applying for a senior leadership position was relevant) felt that the programme had increased their confidence with 14 participants feeling that it had led to no change (Table 18).

***Table 18**. Participants' responses to the question "to what extent do you feel your participation in the Inclusion Matters programme has impacted on your confidence to apply for a senior leadership position in the next year" (N=78).*

Increased confidence a lot	Increased confidence a little	No change	Decreased confidence a little	Not applicable	Unknown (no response)
6	10	14	1	7	40

The programme appears to have provided participants with help for their future applications for senior leadership and for some participants has also increased their confidence to apply. However, more time is needed to see whether this translates into participants submitting applications for senior leadership positions.

RQ3 - Do participants feel more confident to apply for grants after participating in the Inclusion Matters programme?

Participants were asked whether they had submitted an application for a grant/fellowship/scholarship/award where they were Principal Investigator (PI). Thirteen of the 30 participants that had completed the end of programme survey (and that considered submitting an application to be applicable) had submitted an application and 17 stated that they had not submitted an application. Of the 13 that had submitted an application, seven had been successful and three were awaiting the outcome.

Of the thirteen participants that had submitted an application, six considered that taking part in the programme had helped with the preparation of the application, six considered that it had not helped and one participant considered it not to be applicable. Overall, of the 30 participants that responded to the survey (and for whom submitting a funding application was relevant), 14 considered that participating in the programme had already, or would help them in the submission of an application.

Of the 17 that reported that they had not submitted an application as PI, eight considered that taking part in the programme would help them with the preparation of applications for grants/ fellowships/ scholarships/ awards in the future. Six participants considered that it would not help them with the preparation of an application in the future and two participants considered it not to be applicable. One participant preferred not to say.

Thirteen participants reported that they felt their participation in the Inclusion Matters programme had increased their confidence to submit a funding application as PI in the next year, with 16 participants reporting that it had made no change to their confidence (Table 19). Similarly, 15 participants reported that it had increased their confidence to submit an application as a Co-I, with 14 reporting no change. The programme appears to have provided support for some participants towards increasing confidence, with a higher increase to do so as Co-I.

***Table 19**. Participants' responses to the question "to what extent do you feel your participation in the Inclusion Matters programme has impacted on your confidence to submit a funding application in the next year" (N=78).*

	Increased confidence a lot	Increased confidence a little	No change	Decreased confidence a little	Not applicable	Unknown (no response)
As a PI	6	7	16	0	9	40
As a Co-I	8	7	14	0	9	40

RQ4 - Do participants feel more valued within their university and the wider Engineering and Physical Sciences (EPS) community after participating in the Inclusion Matters programme?

RQ5 - Has visibility of staff from under-represented groups changed across different HE forums?

Participants were asked to what extent they felt that their participation in the Inclusion Matters programme had impacted on their confidence to submit a paper to a peer reviewed journal in the next year, present at a conference or liaise with industry (Table 20). Eighteen out of the 36 participants that had completed the end of programme survey (and that considered submitting an application to be applicable to them) considered that the programme had increased their confidence to liaise with industry. A further 18 participants considered that it had led to no change in their confidence.

***Table 20**. Participants' responses to the question "to what extent do you feel your participation in the Inclusion Matters programme has impacted on your confidence to" carry out the following activities (N=78).*

	Increased confidence a lot	Increased confidence a little	No change	Decreased confidence a little	Not applicable	Unknown (no response)
submit a paper to a peer reviewed journal in the next year	6	5	19	0	8	40
apply to present at a conference in the next year	9	6	18	0	5	40
liaise with industry	6	12	18	0	2	40

Participants were asked to rate how strongly they felt participating in the Inclusion Matters programme had led them to change their practice to enable them to make their work more visible (Table 21). Nineteen out of the 34 participants that responded to the end of programme survey (and that considered the question to be applicable to them) agreed that participating in the programme had enabled them to make their work more visible within their department.

***Table 21**. Participants' responses relating to the extent to which they felt that participating in the Inclusion Matters programme had led them to change their practice to enable them to make their work more visible (N=78).*

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	Not applicable	Prefer not to say	Unknown (no response)
make my work more visible within the department	6	13	11	1	2	4	1	40
make my work more visible within my institution	7	10	12	1	2	5	1	40
make my work more visible within my field	10	5	14	1	2	5	1	40

Participants that responded to the end of programme survey were positive about their institution valuing and supporting collaboration with industry (Table 22) with 29 out of the 38 participants feeling their institution valued collaboration with industry and 27 participants considering that their institution actively supported collaboration with industry.

***Table 22**. Participants' responses relating to the extent to which they felt that their institution valued and supported collaboration with industry (N=78).*

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	Not applicable	Prefer not to say	Unknown (no response)
I feel my institution values collaboration with industry	19	10	5	4	0	0	0	40
I feel my institution actively supports collaboration with industry	18	9	5	4	1	1	0	40
I feel confident that working with industry could support my academic career	19	6	4	4	1	4	0	40

Nineteen out of the 32 participants that responded to the end of programme survey (and that considered the question to be applicable to them) reported that participating in the programme had led them to increase the number of colleagues they work with outside their institution (Table 23).

***Table 23**. Participants' responses relating to the extent to which they felt that participating in the Inclusion Matters programme had led them to change the number of colleagues they worked with (N=78).*

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	Not applicable	Prefer not to say	Unknown (no response)
increase the number of colleagues I work with within my department	3	9	14	3	1	8	0	40
increase the number of colleagues I work with within my institution	6	11	9	3	1	8	0	40
increase the number of colleagues I work with outside my institution	6	13	10	1	2	6	0	40

Twenty-one out of the 38 participants that responded to the end of programme survey agreed that they were satisfied in their current role, with 14 stating that they disagreed (Table 24). There were a range of opinions between whether participants considered that they worked with colleagues with the same protected personal characteristics as themselves. The majority of those responding to the end of programme survey considered that they worked with colleagues with similar career aspirations to themselves.

***Table 24**. Participants' responses relating to the extent to which they agreed to statements about their role (N=78).*

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	Not applicable	Prefer not to say	Unknown (no response)
I am satisfied in my current role	12	9	3	10	4	0	0	40
I work with colleagues who have the same protected personal characteristics as me	6	11	7	7	3	4	0	40
I work with colleagues who I perceive to have similar career aspirations as me	10	14	9	3	1	1	0	40

Participants were asked to what extent they felt that their participation in the Inclusion Matters programme had impacted on their confidence to be open with their colleagues about their protected personal characteristics (Table 25). Twenty out of the 35 participants that responded to the end of programme survey (and that considered the question to be applicable to them) reported that their confidence had increased. Fourteen participants reported that it had not changed their confidence.

***Table 25**. Participants' responses relating to the extent to which they felt that participating in the Inclusion Matters programme had impacted on their confidence to be open with their colleague about their protected personal characteristics (N=78).*

Increased confidence a lot	Increased confidence a little	No change	Decreased confidence a little	Not applicable	Unknown (no response)
11	9	14	1	3	40

Finally, participants were asked to rate how strongly they agreed with statements relating to how the programme had impacted on how valued they felt in their department, institution and wider community (Table 26). Twenty out of the 36 participants that responded to the end of programme survey (and that considered the question to be applicable to them) felt that participating in the programme had led them to feel more valued in the wider engineering and physical sciences community.

***Table 26**. Participants' responses relating to the extent to which they felt that participating in the Inclusion Matters programme had impacted on how valued they felt in their department, institution and wider community (N=78).*

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	Not applicable	Prefer not to say	Unknown (no response)
feel more valued within my department	5	11	16	1	2	2	1	40
feel more valued within my institution	4	14	12	2	3	2	1	40
feel more valued in the wider engineering and physical sciences community	6	14	9	1	5	2	1	40

The programme appears to have supported participants in feeling that they have been able to make their work more visible and to feel more valued. Interestingly, although participants felt that they had been most able to make their work more visible in their department, it was in the wider institution and Engineering and Physical Sciences (EPS) field as a whole where they considered that the programme had helped them to feel more valued. Participants also felt the programme had helped them to increase the number of colleagues they worked with, especially relating working with colleagues outside their institution.

RQ6 and 7 - Are there any observable changes in industry or HEIs practices or policies relating to training, leadership, grant capture, recruitment, promotion, engaging with industry and induction?

Context at the start of the project

At the start of the project in August/September 2019, four out of the nine partner HEIs responded to the request for information relating to questions about: the number of academic, research or teaching staff from under-represented groups within their institution who were within Engineering and Physical Sciences disciplines; policies and processes within their institution that showed the adoption of practices that support EDI; information on the current level of collaboration between their institution/ researchers within their institution and the other HEI project partners; and information on the current level of collaboration between their institution/ researchers within their institution and the industrial partners in the project.

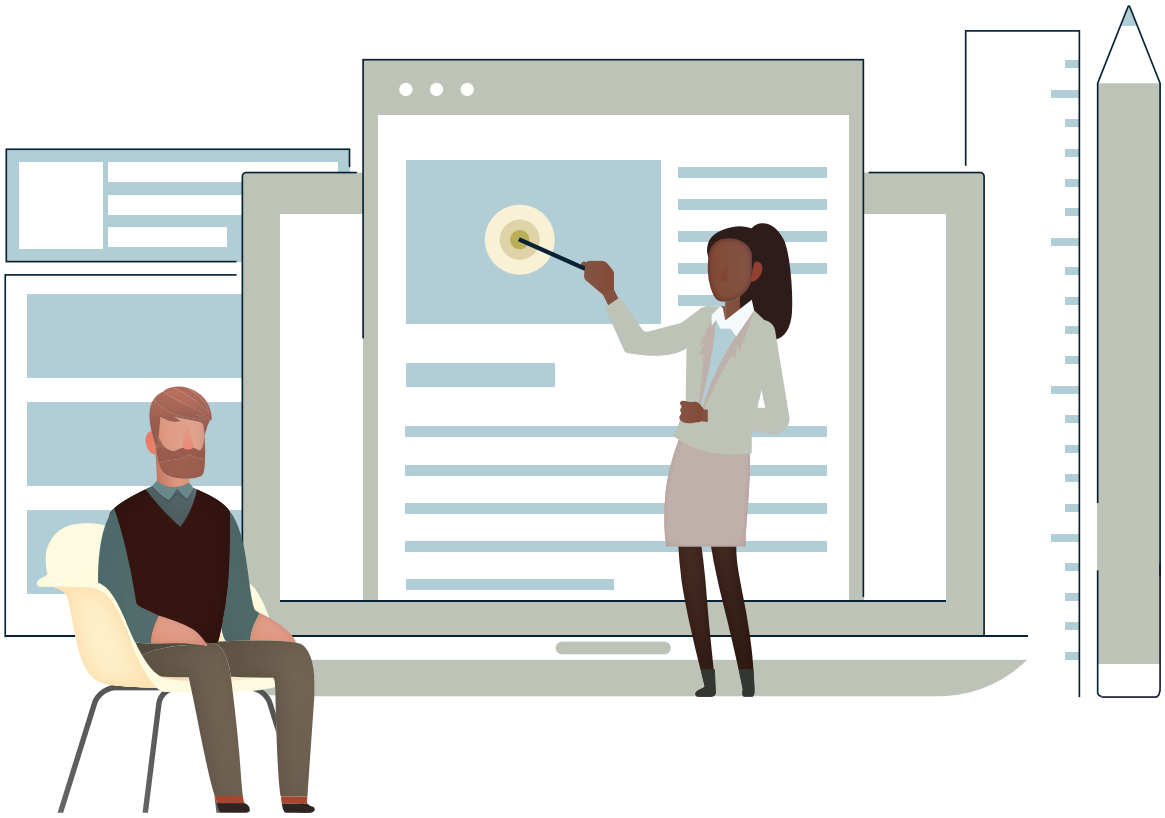
All four responding institutions were able to provide information on under-represented groups, however, the method by which the data was broken down varied between HEIs (e.g by department, or by academic track). Due to the variation in how the data were provided, meaningful descriptive summary of the figures in the report is not possible.

In relation to information about policies and practices, all responding HEIs were able to link to university pages where the information was displayed. One HEI also provided an example of the detailed report on EDI initiatives which was presented at the Faculty EDI Steering Group meetings every two months.

Availability of information about existing collaborations between the partners HEIs in the project varied. One responding institution did not have access to information research collaborations, a second was able to provide information about pre-existing university partnerships but did not have any data on the number or value of collaborative research projects, one was able to supply data from Scopus about co-authored publications and the fourth was able to provide information at the level of individual research projects. Data from co-authored publications showed that for that HEI, there were co-authored papers with academics from all of the partner HEIs. Research projects were reported with three other HEIs for the institution providing a breakdown of projects. Other pre-existing partnerships reported included four universities being part of the existing N8 Research Partnership (Durham, Lancaster, Leeds and Newcastle) and three part of the Russell Group mission group of research-intensive universities (Durham, Leeds and Newcastle).

A similar pattern of access to information about collaboration between the HEIs and the industry partners in the project was seen from the data. Two HEIs reported that no information was known about collaborations, one provided a breakdown of the number of joint publications with each partner (where they existed), and the fourth provided a breakdown of research projects with the individual partners. Collaborations or co-authorship of papers existed with Arup Group, IBM, Northumbrian Water and Siemens across the two HEIs that were able to supply data.

In summary, where data was available, pre-existing collaborations were evident between some of the partner institutions. However, this was not universal, with opportunities for the programme to increase the breadth and depth of collaboration. It is worth noting that the variation in the availability of data at an institution level at the start of the programme meant that it was only possible to develop a narrative baseline for the programme in this area.



Changes at the end of the project

A response was received from all eight remaining HEIs to the end of programme HEI survey (with complete questionnaires received from six of the eight partner HEIs. Note, one HEI withdrew early in the project).

All six institutional questionnaire responses provided information on under-represented groups. However, as at the start of the programme, the method by which the data was broken down varied between HEIs. Due to the variation in reporting, meaningful summary of the figures is not possible.

Changes to attitudes, policies and practices that support EDI within partner HEIs

The partner HEIs were asked whether they considered there to have been any changes to attitudes, policies and practices that support EDI at their institution or whether there were any future changes planned. They were also asked to highlight where these had been influenced by the Northern Power Inclusion Matters programme.

Across the HEIs in the project, there had been a range of initiatives that had been (or were planned to be) implemented as a direct result of participating in the Northern Power Inclusion Matters project. From the responses in the six questionnaires received, these included:

- Knowledge sharing between institutions in relation to EDI initiatives.
- Institutional gaps in training needs of ECRs identified as a result of the Northern Power Inclusion Matters programme e.g. lack of awareness of internal sources of support for research proposal development.
- Prioritisation of EDI training, inclusion of EDI considerations within non-EDI specific training courses, updated online support materials as a result of partner HEIs in the region discussing similar initiatives which acted as a driving force for change within other institutions. Training courses which were included as part of the Northern Power Inclusion Matters programme are also being rolled out to be accessible university-wide in some partner HEIs (e.g. mandatory EDI training, active bystander training).
- Explicit inclusion of EDI within the successful Centre for Doctoral Training in Renewable Energy Northeast Universities (ReNU) application.
- Review of induction processes to improve inclusive practices.
- Development of Race Equality Charter action plan linked to work from Northern Power Inclusion Matters (e.g. supporting progression and representation at senior levels).
- Implementation of institutional Reciprocal Mentoring Scheme to support succession planning into committee roles and to support postgraduate study and supervisor relationships.
- Review and development of staff and student recruitment processes to improve inclusive practices (e.g. programme of activity to support black, Asian and minority ethnic (BAME) access to committee structures).
- Expanding mentoring provision modelled on the models used in the Northern Power Inclusion Matters Project (traditional and reciprocal).
- Working together to submit further EDI related projects with Northern Power Inclusion Matter partner HEIs.

In addition, a wide range of other EDI related policies and practices not influenced by the project had also changed over the period of the project as part of normal university working practice. Examples included:

- Updating and creation of new EDI frameworks.
- Development of new and updated policies that have consideration of and support EDI.
- Increased institutional engagement with EDI.
- New posts and resourcing to support EDI provision.
- Training.
- Consideration of inclusivity within the research environment and grant capture.
- Multiple partner HEIs stated that they have signed up to the Race Equality Charter and continue to develop their Athena Swan applications.
- Funding for leadership development courses e.g. Aurora and BAME leadership programme.
- Review and development of staff and student recruitment and promotion processes to improve inclusive practices e.g. development of aide-memoire on unconscious bias, balanced shortlisting panels, gender-neutral checks on recruitment material, strategies for reducing the awarding gap and improving progression from undergraduate to postgraduate taught and postgraduate research degrees, curriculum review, targets to increase representation in professional, managerial, support and professorial roles.
- Development of reporting mechanisms for harassment and hate crime, complaints procedures and policies.
- Prioritising institutional responses to bullying, harassment and hate crime.
- Increasing visibility to EDI internally and externally, providing information and supporting participation in EDI initiatives, and engaging in sector dialogue on EDI issues.
- Implementing shared characteristics mentoring, reverse mentoring schemes and promotion support sessions (not related to activities within Northern Power Inclusion Matters).

Factors external to the project influencing change within the partner HEIs during the project

HEIs were asked to reflect on factors external to the project which had influenced changes relating to the attitudes, policies and practices that support EDI in the partner HEIs during the period of the project.

Positive factors external to the project that HEIs reported included:

- New senior leadership driving change.
- Commitment at an institutional level to focus on race equality, respect and anti-racism.
- Accelerated cultural change within the organisation.
- Commitment to the Race Equality Charter.
- Athena Swan.
- Increased profile of the Black Lives Matter movement.
- Research Excellence Framework (REF).
- Covid-19 placing staff and student wellbeing central to all new policies and practises, acknowledgement of inequities in terms of access to physical, IT/digital resources and acknowledgement of the exacerbation of existing inequalities.
- Consideration that EDI was already well embedded within the faculty and that there was already a diverse environment which was also represented at senior leadership level.

Barriers to change (external to the project) included:

- Covid-19 restricting operations, reprioritisation to support online teaching and learning and a reduction in the time that staff have been able to devote to work-related activities due to competition from caring responsibilities, childcare, ill-health and the redirecting of time towards mitigating the impacts of Covid-19 on staff and students etc.
- Level of non-(self)-disclosure of staff equality data in regard to race and other characteristics (e.g. disability).
- Two universities in the partner HEIs had faced cyber-security attacks that had significantly impacted on their operations for a period of time during the project.

Collaboration with partner HEIs

Participation in the Northern Power Inclusion Matters project had strengthened collaboration between HEI partners in the project and assisted collaboration and inclusion of ECR researchers from under-represented groups on several large research bids and a Centre for Doctoral Training. It had also supported sharing of job opportunities and university practices. Responses were received that participation in the project had also encouraged partners within the project to seek future collaborations with one another.

Collaboration with industrial partners

Change for HEIs in relation to collaboration with industry partners had mostly been felt by the HEIs leading activities with direct involvement of industry partners within their activities. Examples of changes included improved reach within the industry partners in the project, so that it had been possible to *"Tak[e] conversations beyond the original contacts or those with assigned EDI responsibilities to additional workforce members who are actively engaged in EDI initiatives on a daily basis"*. Advertisement of additional internship opportunities within the industry partner organisations had also been a positive development. Industry partners were also seeking to continue working with contacts within the project to develop some of the activities further (e.g. Reciprocal Mentoring) across a broader network. Lessons learned from discussions with industry partners as part of the project was also influencing subsequent funding applications (e.g. co-production and cross-disciplinary approaches).

Summary

The developers of the programme considered that the EDI landscape had changed since the start of the project. They felt that there was more desire from organisations to engage with EDI issues, which was seen as positive, although they felt that there was still much work to be done. In terms of Covid-19, this was seen to have had both a positive and negative impact in terms of EDI. In many cases, Covid-19 placed staff and student wellbeing central to all new policies and practices and there was an acknowledgement of inequities in terms of access to physical, IT/ digital resources and acknowledgement of the exacerbation of existing inequalities.

As a direct result of participating in the programme, HEIs reported that they had already implemented a range of initiatives (or were planning initiatives). These took a range of forms from knowledge sharing, updating training provision, reviewing processes to improve inclusive practice and working with other partner HEIs to submit further bids. Direct impact relating to collaboration with industry partners had been mainly felt by the HEIs leading activities where the industry partners were strongly involved in the activities. For the industry partners, their involvement was predominantly through Reciprocal Mentoring and the University-Industry Collaboration activities. Collaboration outside these activities had been mostly present through contacts made as part of these activities.

The importance of clear data to be able to measure impact should be highlighted. Both the start and end of the programme, the data available at an institution level at was varied and was not in a form for which meaningful comparisons could be made. To support implementation and review of effective EDI policies, detailed and meaningful information is a crucial starting point for evaluation.

As anticipated, to date the project led to changes in *practices* in some HEIs but has not yet reached a stage of impacting on *policy*. Although policies had changed during the period of the project, these were changes which were already in the pipeline. However, this is not unexpected, as it often takes several years to change policies within an organisation.

Implementation and process evaluation by activity

This section discusses the findings from each of the individual activities within the programme before considering the overall delivery of the Northern Power Inclusion Matters programme.

Structure of the section:

- Participant recruitment and the application and selection process.
- Shared Characteristics Mentoring.
- Reciprocal Mentoring.
- Online Platform.
- Academic Networking.
- University-Industry Collaboration.
- Overall programme differentiation for participants and challenges for participation.
- Overall programme implementation.

Participant recruitment, the application and selection process

Key findings:

1. The programme achieved its aim of recruiting participants from a broad range of under-represented groups, and from across partner HEIs and industry partners. To do this, a wide range of activities were undertaken across the partner HEIs within the project, for recruitment of participants.
2. Sign up by participants to the programme had been slower than expected. Although there was a good launch, the initial uptake was not as high as hoped for. Although had been anticipated that staff with invisible/undeclared characteristics may be more difficult to recruit due to a potential reluctance to declare how they met the eligibility criteria, it was expected that those with visible identities would be more enthusiastic to participate.
3. Over the duration of the programme, the activities that HEIs considered to have been most effective were: direct contact with individuals to recruit to specific activities; emails to Heads of Department to request cascades of messages; direct emails to individual potential participants; emails targeted to specific networks; and communications being targeted at specific activities or events, highlighting the benefits of participating in a particular activity. The most common method that participants reported they had heard about the project was through an email from their own institution.
4. The recruitment strategy was reviewed and refined regularly over the course of the programme. Key elements that were found to best support recruitment included:
    - Detailed understanding of the motivations and drivers of potential participants to draw upon in the recruitment materials to "sell the benefits" of participating.
    - Clarity of messaging.
    - Utilising multiple modes of, and messaging within, communications to account for the differing drivers of individual participants and HEIs.
    - Identifying communication strategies that were most effective and efficient for meeting the needs for the different activities, participants and partner HEIs. What works in one organisation, may not work in another.
    - Engagement at multiple levels within organisations to support recruitment (e.g. senior leadership, faculty leads, heads of department, line managers).
    - Championing from senior leadership for both the benefits of the programme and to encourage participants to consider taking part.
    - Input from a range of stakeholders and champions to encourage participation (e.g. central marketing and communication or HR teams, Heads of Department, special interest groups).
5. Three out of the six HEIs responding to the audit had been unable to carry out any further recruitment activities beyond March 2020, due to the disruption created by Covid-19 and the additional work required in response to the pandemic for the EDI teams.

Recruitment activities

The original expectation had been that recruitment and allocation to activities would take place between September 2019 and December 2019. However, in response to application numbers, the impact of Covid-19 and changing project timelines, recruitment of participants was extended to enable participants to register over a longer time period.

Recruitment activities took several forms. Central communications and marketing assets were available from the main project management team along with the project website being live from 10th September 2019.

Information on the range of activities which were undertaken across the partner HEIs was collected via three recruitment audit questionnaires for the periods of 1st September 2019 – 13th November 2019, 14th November 2019 – 29th February 2020, and 1st March 2020 – 31st July 2020.

November 2019 recruitment audit

The first audit covered the period from the launch of the programme in September 2019 to 13th November 2019. Responses were received from seven of the eight HEI partners.

- ***Email*** – The extent to which emails had been used by the different HEIs varied. In general, emails had been used to provide a summary of the project across Engineering and Physical Sciences (EPS) related faculties and departments, as well as to staff community networks (both research and EDI related). However, some HEIs reported that they preferred alternative approaches to email. In response to being asked whether emails had been sent to individuals (as opposed to sending a general email via a mailing list), several HEIs reported that they had contacted particular individuals where they believed there would be a benefit to participating, or individuals in key roles that could support or encourage staff to participate. However, others had taken the decision not to specifically contact individuals, so as not to place pressure on them to feel they had to take part.
- ***Face-to-face conversations*** – All HEIs reported that they had undertaken some face-to-face communication to encourage participation. In the majority of cases, these were one-to-one conversations with individuals, however, in some cases discussion had been with professional support departments that could support and encourage participation on the ground.
- ***Speaking at faculty or departmental meetings*** – Publicity for the project along with project updates had been included in faculty meetings and EDI steering groups, meetings with heads of departments as well as with executive boards at all but two of the HEIs (one of which did not have faculty meetings and the other which shared details through regulatory and professional body committees instead). The project had also been publicised in departmental meetings at four of the HEIs.
- ***Speaking at special interest groups*** – Information about the programme had been shared with special interest groups at several of the HEIs, with a couple of HEIs also having the opportunity to present about the project at group meetings.

- ***Twitter*** – Social media was not a main channel of communication used by partner HEIs, with two of the HEIs reporting that tweets had been sent out about the project through their HEI.
- ***Posters and flyers*** – Two HEIs had displayed posters on faculty or department notice boards. Flyers had been slightly more widely used both physically and as attachments to emails.
- ***University marketing and communications*** – Three of the HEIs had received support from their university communications team. However, other HEIs had been directed to alternative departments or teams (e.g. HR) to support internal advertising, due to the project being aimed at a sub-set of staff within the institution (so whole institution marketing and communications support was not considered the appropriate approach).
- ***Involvement of HR department*** – A minority of universities reported having engaged with their HR teams. In some cases, representatives from the organisational development or HR teams were part of the project.
- ***Involvement of EDI teams*** – Three HEIs had direct involvement from the EDI teams on the project with a fourth reporting that they received regular updates on the project.

Other activities that had taken place included direct contact by activities' representatives with partner HEIs to provide more direct information and discussion around what those activities involved.

The HEIs reported that face-to-face recruitment appeared to have been the most successful approach up to November 2019. Uptake of places had initially been slower than anticipated, and moving forward, HEIs reported they were going to try speaking at more departmental meetings and networks in person to encourage participation.

February 2020 recruitment audit

The second audit covered the period between November 2019 and the period immediately before the Covid-19 national lockdown commenced in March 2020. Data collection was carried out at the beginning of the Covid-19 lockdown period when priority within HEIs was in redeveloping teaching activities and ensuring staff health and wellbeing. This may explain the lower response rate to this audit, where only three HEIs responded to this call, all were HEIs that were leading activities.

- ***Email*** - In the three HEIs that responded, emails had been much more targeted to Deans, Heads of Department, departmental and postdoctoral administrators. As well as promoting the project as a whole, communications had also been sent which were event specific with a link for registration for these particular events. Targeted emails to individuals had also been more widely used. Promotional emails had also been sent out widely across staff networks at two of the three HEIs.
- ***Face-to-face conversations*** - Communication about specific activities had been carried out by all three HEIs.
- ***Posters and flyers*** - Posters had been more widely distributed at one of the HEIs to non-EPS specific locations (e.g. cafes, reception areas across the campus). Flyers had continued to be used both as physical copies and as electronic attachments.

- ***Speaking at faculty, departmental meetings and special interest groups*** – For a range of reasons, these had not been widely possible across this period. However, some meetings with Heads of Science, research meetings and EDI committees had taken place. Slides had been shared for further information following the presentations.
- ***Support from marketing and communications teams*** - None of the responding HEIs reported accessing support from their marketing and communications teams during this period.
- ***Involvement from HR and EDI teams*** had been received during this period.
- ***Central project produced communications and marketing materials*** had been widely used by all three HEIs during this period.

Recruitment activities that the HEIs felt had worked particularly well during this period were emails to Heads of Department to request cascade of messages "from the top" and direct emails to individual potential participants. This was in combination with the communications being targeted at specific activities or events.

"From January there was a recruitment drive focusing on registering participants to the whole project and [named activity]. An engagement plan and targeted communications were written with the aim to increase recruitment. The primary focus being signing up participants whilst still promoting the whole project. The communications were written so they were; simple, clear and action orientated (with links)."

July 2020 recruitment audit

Six out of eight HEIs responded to the July 2020 audit, which covered the period from 1st March 2020 to 31st July 2020. Three were HEIs leading activities. Due to the social distancing requirements and national lockdown due to Covid-19, announced on 23rd March 2020, project recruitment and the project timeline significantly altered from March 2020 onwards.

Three out of the six HEIs responding to the audit had been unable to carry out any further recruitment activities beyond March 2020 due to the disruption created by Covid-19 and the additional work required in response to the pandemic by the EDI teams.

For the three HEIs that had been able to carry out additional recruitment during this period the activities had included:

- ***Emails*** – Just prior to, or early in the national lockdown, emails had been sent to faculties and departments. Beyond this point, emails had predominantly focussed on recruitment to specific activities.
- ***Face-to-face conversations*** – Communication was adapted in response to Covid-19 and was more difficult to organise. Priorities for both early career and established career staff was noted to have changed in a short amount of time due to Covid-19. Only a small number (<10) of this type of communication took place during this period.
- ***Posters and flyers*** – Due to staff not being on campus, physical copies of posters had not been used, however, flyers had been distributed electronically.

- ***Speaking at faculty, departmental and special interest meetings*** – There were fewer opportunities to present at meetings during this period, however, there had been a couple of opportunities to present slides at the end of events or to present at staff or team meetings. A programme of recruitment events at partner HEIs had been planned by the overall project management team, however, the events had been scheduled for March and had to be postponed, before eventually being cancelled due to Covid-19 restrictions.
- ***Involvement of HR and EDI teams*** – This had predominantly been through working with specific contacts, some of whom were part of the project team. Contacts had been able to promote events or to provide access to contact lists.

Other activities that had been undertaken during this period included specific requests by activities for circulation of materials by partner HEIs. Detailed information and pre-prepared materials about the activities were shared with the partner HEIs for distribution, however challenges of time and resources meant that circulation of materials had been limited.

Recruitment activities that had been particularly successful during this period included direct contact with individuals to recruit to specific activities and emails to targeted networks highlighting the benefits to participating in a particular activity as part of a marketing campaign including direct links to the registration pages. Website analytics indicated a peak after the targeted email communications had been sent.

Participants were asked in the baseline survey through which method they had heard about the project (Table 27). The most common method was through an email from their own institution (35 out of 78 participants).

Table 27*. Method by which the participants heard about the project (N=78).*

Method	N
Asked to participate	6
Email – another institution or network	1
Email – own institution	35
Presentation or Departmental meeting	1
Word of mouth	2
Unknown (no data)	33

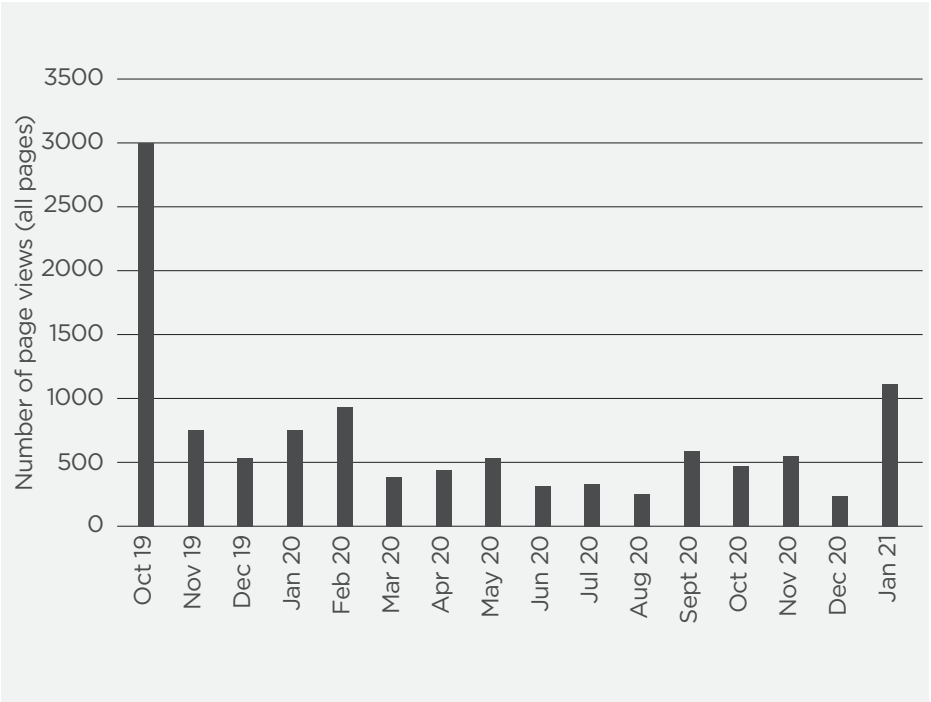
To support recruitment, one of the aims for the Northern Power Inclusion Matters website was to provide an accessible platform for advertising and recruitment to the programme. Table 28 below shows a summary of the unique views of a selection of the pages on the programme website between October 2019 and January 2020. As would be expected, the most visited page on the website was the home page followed by pages with information about the project and activity specific pages.

***Table 28**. Unique views of pages viewed on the website during the period October 2019 to January 2020.*
[a] Activity specific pages include: Shared Characteristics Mentoring, Reciprocal Mentoring, University-Industry Collaborations, Leadership Development Workshop, Networking for Career Development.
[b] Pages with information about the project include: about, eligibility, meet the team, key links and resources, advisory board, information.

Page categories	Average Unique Page Views	Average Time on Page (seconds)
Home Page	3256	98
Activity specific pages[a]	299	89
Pages with information about the project[b]	330	80

Figure 4 shows the number of page views by month across the duration of the programme. Note that the data in Figure 4 is not limited to unique visits and includes visits to all pages on the website. As can be seen, October 2019 was the month with the most visits, which corresponded to the main marketing activity for the project.

***Figure 4**. Activity on the website (all pages) during the period October 2019 to January 2020.*



Application process

Two application routes were possible as part of the Northern Power Inclusion Matters Programme:

1. main project registration form or
2. event specific application forms (for three activities).

Applications were open from September 2019 to May 2020 through the main project registration form with applications for the EDI in EPS event and Being Prepared for Business Workshops 1 &2 also utilising separate application forms in November/December 2019, January/February 2020 and September/October 2020 respectively.

Participation Allocation Panel (PAP)

To accommodate the possibility of more applications than spaces for some activities, the project took the decision to include a process for fairly considering applications on eligibility, rather than a first come first served approach to offering spaces. Therefore, for applications which came through the main project registration form, the applications were processed through a Participation Allocation Panel (PAP). The first part of the process involved the application form data being processed by the overall project management team to ensure that the applicants met the eligibility criteria for the programme.

The applications were then pseudoanonymised (to remove name) and passed to the PAP panel members (comprised of activity leads) who reviewed and scored the written statements from applicants which detailed why they wished to participate in the programme. The PAP panel members then: discussed any difference of opinion in scoring of the written statements before agreeing a final score for each candidate; agreed allocation of participants to activities; and agreed rollover of any participants to the next PAP meeting. The PAP met six times during the project (September 2019, October 2019, November 2019, January 2020, February 2020, May 2020). The panel met in-person for the first PAP session and were contacted remotely for all remaining sessions. Following allocation to an activity via the PAP, the applicants were then contacted by the overall project management team to inform them of the different activities they had been allocated to and to inform them that the individual activities would then be in contact with further details.

Observation of the PAP process

The first PAP session (September 2019) was observed in full as part of the evaluation. The PAP panel used the session as a 'pilot' to discuss how they were each approaching the allocation process and to clarify and refine any areas where they were not clear. Discussion around refinement of the process included whether applicants should be allocated to more than one activity, how stage 2 communication would take place via each activity and where in the process (PAP or stage 2 data collection) certain information should be collected and considered for the allocation of participants. The decision was made that all applicants should be notified within two weeks of the outcome of a PAP.

Following the first PAP, participants were contacted and offered places on their activities by the main project management team. However, it was made clear that the timescale of the activities would be delayed until the data sharing agreement had been signed by all relevant HEIs.

From the second PAP (October 2019) onwards, the scoring and discussion took place remotely. To facilitate the process, a time was scheduled when discussion could take place online between PAP members. The project management team sent out the application details slightly in advance of the time scheduled for PAP discussion, and PAP members were asked to rate the participants' written statements in advance of this time and to state whether they would like to offer relevant participants a space on their activities. The scores were then compiled by the project management team the following day before being circulated for final confirmation of allocations.

The PAP process was designed to fairly consider applications on eligibility, rather than on a first-come-first-served basis. This aimed to create a more inclusive application process but was a more time intensive undertaking than a first-come-first-served design. Challenges for implementation included finding a period of time each month when all PAP panel members were able to set aside time to consider applications. A further challenge was the length of time it took for institutional agreement of the terms of the four-way data sharing agreement to enable data to be shared between the HEIs of the panel members and their activities. This was exacerbated by changes to the project partners during the first 6 months of the project which resulted in collaboration agreements requiring amendment and reissue prior to data sharing agreements being issued.

Acceptance of places

The second stage of the application process was for the individual activities to contact the successful applicants to advise them that they had been allocated a place, provide them with details of what would happen next and timescales for the activity, provide the activity specific privacy notice for review and to ask applicants to confirm whether they would like to accept their place on the activity. Following this stage, once participants had accepted their place on the programme, any additional data collection e.g. mentor matching questionnaires etc. was then sent to the participants.

Challenges during the recruitment, application and allocation process

As described in the summary of participants above, the programme achieved its aim of recruiting participants from a broad range of under-represented groups, and from across partner HEIs and industry partners. To do this, the programme adapted its processes and refined its approach during recruitment to overcome several challenges. These were discussed by the developers (overall project team, overall project leader, activity developer teams) in their end of programme interviews.

The need for time, support and resource for HEIs to be able to effectively engage with the recruitment process was something that was commented on several times. To be most effective, engagement needed to be at multiple levels, with support and input from a range of stakeholders and champions. Championing from senior leadership was identified as being particularly useful in engaging sufficient support. The importance of not underestimating or under-costing the time, support and resources required for effective engagement with recruitment and allocation activities within a programme on the scale of Northern Power Inclusion Matters is essential.

The need for a detailed understanding of the motivations and drivers of potential participants was considered important to be drawn upon both in the design of the activities and also in the recruitment materials to "sell the benefits" of participating. The developers considered that this could be an area that would benefit from even more focus in future projects of this nature.

To account for the differing drivers of individual participants and HEIs, several approaches to communications were developed. With the breadth of activities within the programme, clarity of messaging and identifying communication strategies that were most effective and efficient for meeting the needs for the different activities, participants and partner HEIs was an iterative process which developed throughout the project. The breadth of activities meant that with a limited number of participants and finite time and resources to support recruitment, there was the potential for competition to meet the aims of specific activities. However, in general activities and partner HEIs were supportive of driving recruitment across the whole programme.

Maintaining effective contact with the partner HEIs that were not activity leads was also key. By the nature of their involvement in the project, communication with these partners was less frequent than with the activity leads, therefore communication had to take into account changes to project contacts and alignment with changing institutional arrangements. The number of partners within the project also meant it was important to factor in sufficient time for following up communications with all partners.

In the early stages of the project, finding a balance between the detailed development of the overall programme and activities, and frequency of external communication with participants and partners, took time to develop. It was commented that having marketing expertise built into the core project team from the outset, was something that may have helped with balancing the demands of programme development alongside communication with participants.

The developers were asked to what extent participants had engaged as they expected with the Inclusion Matters programme. Comments included that the speed of recruitment was slower than had been expected. Although there was a good launch, the initial uptake was not as high as hoped for. Although it was expected that staff with invisible/undeclared characteristics may be more difficult to recruit due to a potential reluctance to declare how they met the eligibility criteria, it was expected that those with visible identities would be more enthusiastic to participate. Once participants had signed up though, the respondents indicated that engagement then appeared to have been reasonable. The short-term nature of the contracts for some ECRs was potentially considered to have influenced participation. In addition, heavy work-loads for ECRs may have led to the programme being viewed as something which would have been a “nice extra”, but not an essential activity, at a time when they felt priority needed to be given to other areas within their role.

Shared Characteristics Mentoring

Key findings:

1. Twenty participants took part in the Shared Characteristics mentoring activity, matched as 10 pairs of Early Career Participant mentees from under-represented groups with established career mentors.
2. Mentees appreciated the focussed time given by their mentors and acknowledged the value of this activity. They appreciated being paired with a mentor with similar identity and interests, who had the experience and perspective to offer insight into the reality of progressing in academia with these characteristics. They also commented on the benefit of the personal and honest advice they felt they received.
3. Mentees appreciated the cross-institutional nature of the activity and being matched outside their institution, which allowed them freedom to share without any fear of bias from their colleagues in their department. The mentees felt safe to discuss their challenges and available options in a trusting environment.
4. All six mentees who responded to the question in the end of programme survey, stated that the Shared Characteristics Mentoring activity had supported them to build networks.
5. Some participants had found the move to online delivery beneficial as it had enabled flexibility, efficiency and was more convenient for them compared to face-to-face meetings.
6. Mentors reported that although mentoring is a big commitment of time, they considered it to be worthwhile, as it helps in transition of knowledge and experience to the next generation. However, they noted that often, mentoring is expected to fit into a person's existing role, without recognition.
7. Not all potential mentees had been able to be matched with a mentor due there being too few mentors with shared characteristics from under-represented groups. The activity developers offered everyone access to mentoring resources and directed to alternative mentoring schemes if necessary. The developer's recommendation is that future developments of the programme consider a more relaxed approached for shared characteristics matching to preserve the benefits of the programme and ensure that everyone is included.

The Shared Characteristics Mentoring activity started in March 2020 following a recruitment campaign which had commenced in September 2019. The programme required a large number of mentors and mentees to be included in the sample pool, who could then be matched on the basis of shared characteristics (e.g. being from the same under-represented group) and shared academic interests.

There were a number of challenges in the recruitment phase, especially in the wake of the first Covid-19 lockdown from the end of March 2020 in the UK. HEIs moved administrative, teaching and research activities online and this major transition substantially increased the workload of academics, which in turn impacted participation, as potential mentors and mentees were on the front line of organising and leading online teaching.

In addition, Covid-19 restrictions required changes in the delivery of mentoring training sessions, which were initially planned to take place in person. Transition to the online mentoring activity was the most suitable alternative and this did not become a barrier as such. Mentors and mentees completed their sessions using online communication platforms of their choice.

Features of the programme

All mentors and mentees were given the option to complete the online training module developed by the activity lead. This training was a compilation of bespoke resources on mentoring and included: introduction to mentoring and Shared Characteristics Mentoring, mentoring skills, mentee attributes, and building rapport. Tools, as well as tips and advice for the mentors and mentees on delivering a successful mentoring session were also provided. External resources, with mentoring and coaching books and inspirational videos were included. A handbook on mentoring was an additional resource available to mentors and mentees. Padlet discussion boards were provided for mentors and mentees to stimulate engagement and offer a support network with other mentors or mentees, respectively.

Participants from under-represented groups were encouraged to register as mentors and mentees following an ongoing recruitment campaign (as detailed in the Recruitment section earlier in the report). Mentees were self-nominated Early Career Participants from the Engineering and Physical Sciences (EPS) community. The Shared Characteristics Mentoring activity team encouraged the participation of mentors who had academic excellence, experience and knowledge, availability of time, and interest in the capacity building of ECRs in EPS.

The matched mentor-mentee pairs were expected to meet at for a minimum of four sessions, with each session lasting at least an hour. The pairs mutually agreed how the meetings were organised and what topics of development, opportunities and challenges they would discuss. The sessions were private meetings between the matched pair of mentor and mentee. All meetings were conducted online using Zoom, Skype or MS Teams portals – the decision of which communication environment to use was taken by each pair, based on their experience and personal preferences.

Participant flowchart

The allocation of participants to the Shared Characteristics Mentoring activity is shown in Figure 5 and Figure 6 below.

Following allocation to the activity via the Participant Allocation Panel (PAP), 33 participants were sent welcome letters offering the opportunity to be signed up to be matched to a mentor as part of the Shared Characteristics Mentoring activity. Of these, 11 subsequently did not fill out the agreement forms and/or complete the SUMAC (mentoring matching software) registration process, and/or withdrew. Of the 22 participants that were entered into the matching process, 12 were not successfully matched to a mentor because there was a limited number of mentors with under-represented shared characteristics available. Online resources were offered to participants who were not matched. For unmatched mentees that were from the same institution as the activity developer, it had also been possible to signpost these participants to other mentoring schemes within the HEI.

Sixteen participants were invited to be mentors on the programme, however, four did not reply or withdrew and two accepted but then did not start the mentoring. Therefore, at the end of the allocation process, ten mentor-mentee pairs took part in the Shared Characteristics Mentoring activity.

***Figure 5**. Participant flow for Shared Characteristics Mentoring (mentees). Note that the first stage of the allocation process is described in the Participants section at the beginning of the Results section.*

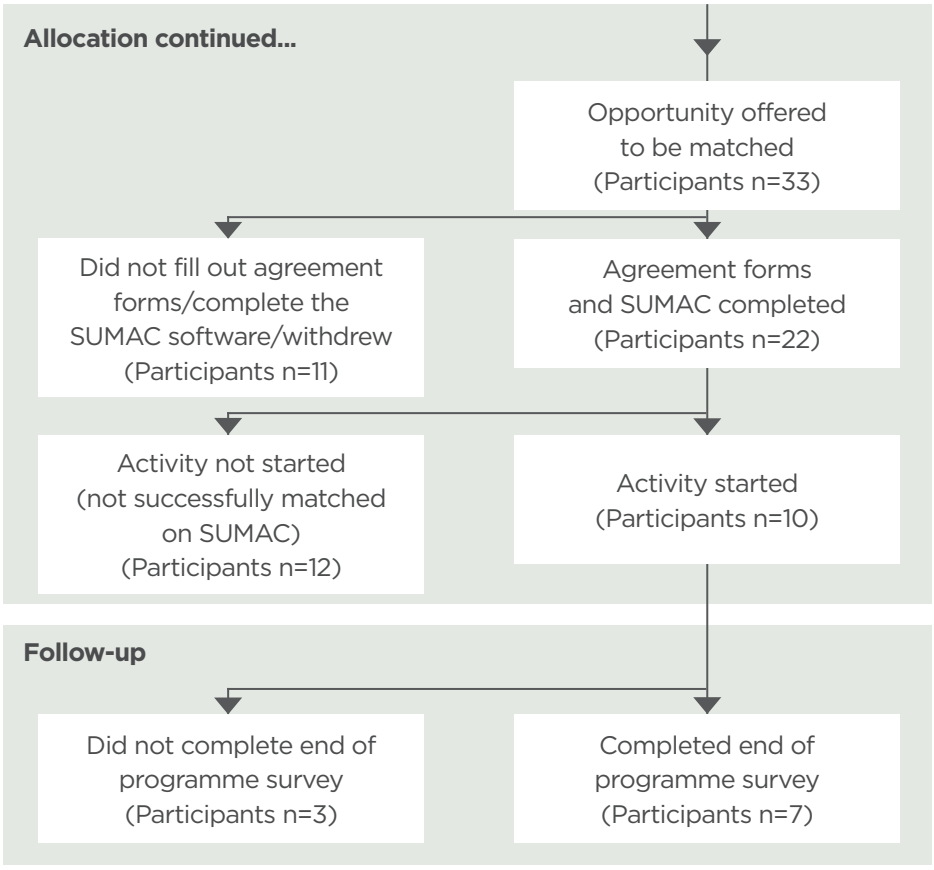
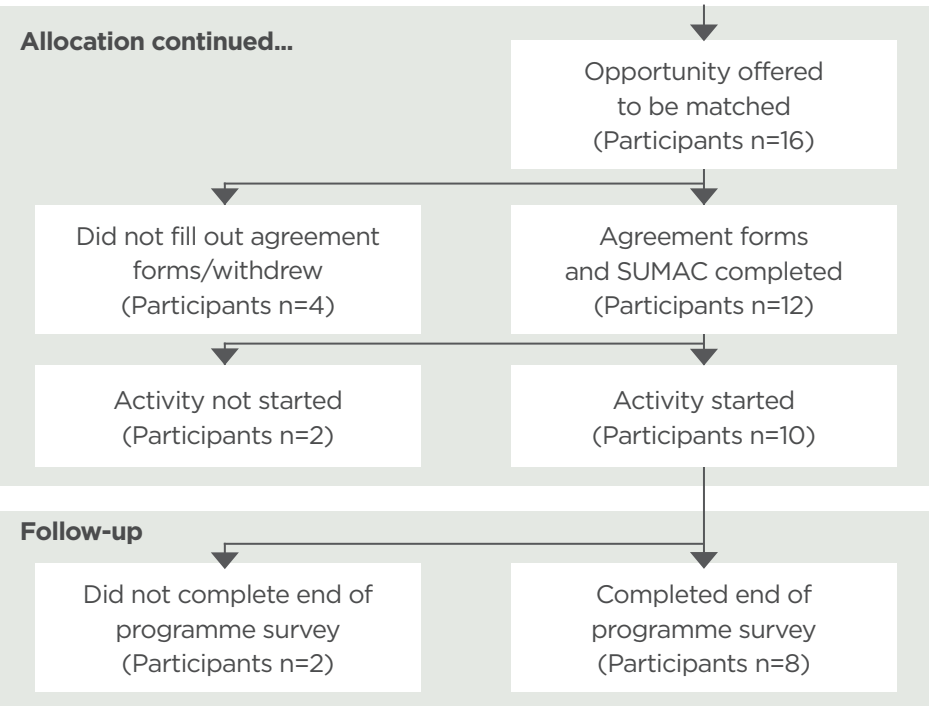


***Figure 6**. Participants flow for Shared Characteristics Mentoring (mentors). Note that the first stage of the allocation process is described at the beginning of the Results section.*



Participants on Shared Characteristics Mentoring

The participants on the Shared Characteristics Mentoring activity self-reported their personal and background characteristics in the baseline survey (Table 29).

***Table 29**. Under-represented characteristics that participants on the Shared Characteristics Mentoring activity identified with (Mentors N=10, Mentees N=10). Where there were more than zero but fewer than five participants reporting a characteristic, this is reported as <5, to preserve anonymity.*

Under-represented characteristic	Mentors	Mentees
Black, Asian and minority ethnic (BAME)	<5	6
LGBT+	<5	0
Disabled	0	<5
Woman	7	9
Other	<5	<5

Intersectionality in participant characteristics

The number under-represented characteristics stated by mentors and mentees are presented in Table 30 below. This is table explains the complexity in the nature of under-represented groups, which can be an important area to be considered for programmes such as mentoring. .

***Table 30**. Intersectionality of participants' under-represented characteristics on the Shared Characteristics Mentoring activity (Mentors N=10, Mentees N=10).*

Number of under-represented characteristics selected by applicants	Mentors	Mentees
1	6	3
2	4	4
3	0	3

Mentees' career profile

Based on their responses to the baseline survey, the 10 mentees on the programme had been in their current role for an average of 2.0 years and at their current institution for an average of 4.7 years at the time of registering for the programme. Eight participants had completed a PhD, with three having taken a career break and three having worked outside academia for a period of time. Only one of the 10 mentees was on a permanent contract, with three on fixed term contracts and three responding "other" or "prefer not to say".

Mentees' initial expectation and motivation of participation

In their personal statement within the registration form for the programme, participants were asked to provide a brief explanation about their motivation and expectations for participating in the Northern Power Inclusion Matters programme. These statements were asked to be written with the view of how they saw their academic identity as under-represented and what they hoped they would gain from participation in the programme. Analysis of the statements identified three themes that were relevant to their reasons for wishing to participate in Shared Characteristics Mentoring: need for confidence, adding the voice of under-represented groups and personal life challenges as barriers.

Need for confidence

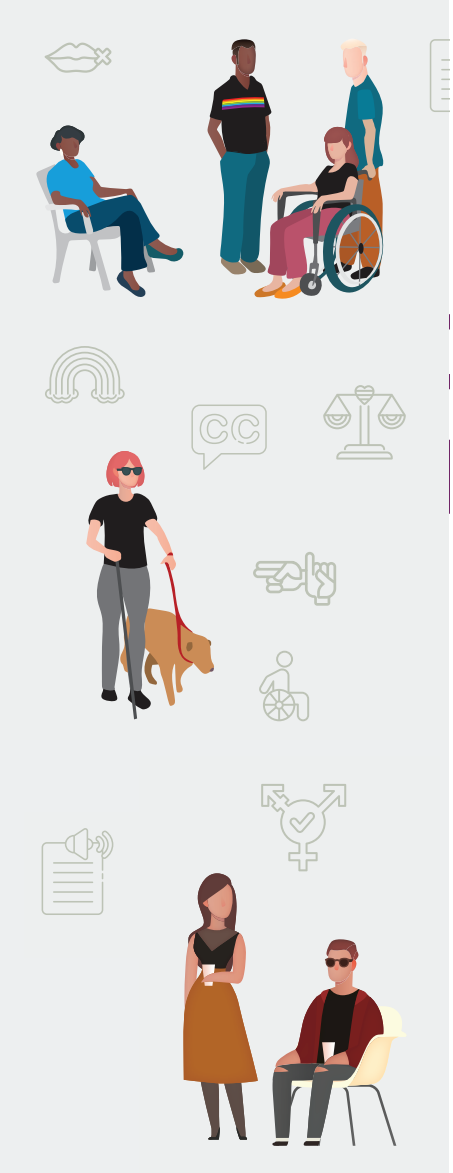
Early Career Participants mentioned that they struggled to establish their space and recognition in their new roles.

"Over the last few years I have struggled with both confidence and feeling that I do not belong/fit within [EPS discipline]. I frequently struggle with being stereotyped by male colleagues who initially assume that I am a PhD student or administrator... I am hoping that this project will help to improve confidence for leading teams, gain greater understanding of my personal leadership style, and how my background and experiences shape this."

"I hope to gain a more clear approach to my academic progression and the confidence to achieve this. I am currently facing issues in an authorship dispute would feel less isolated by being able to explore such issues in a diverse community environment."

"I continued to work part-time at the University in a non-research support role. By participating, I hope to benefit from the activities in order to refocus and find the best way to salvage and continue with my research career."

"I lack confidence in how to take initiative in conducting research compared to before where PhD supervisors orient the research project. I hope from the mentoring scheme, I can get to know how to acclimatise myself to the new environment and take initiative. Moreover, as I still wondering whether to stay in academia or work in industry, having access to university industry partnership would be really beneficial to me to get a clearer picture of both arenas and make a better decision."



Adding voice of under-represented groups

The Early Career Participants wanted to add their voice and perspectives about their identities and experiences. This is a promising sign for EPS in the UK that the under-represented groups are aware and they want to be heard, included and be visible.

"As the only ECR at my institution which is working in the area ...and also a woman in STEM, from an under-represented ethnic and religious group, I could bring a new perspective and skills to the research area and understanding of concerns/needs/issues of people from similar groups, related to inclusion and diversity."

Personal life challenges as barriers

Mentees mentioned their struggles and challenges in personal life that become barriers in their academic progress. Expectation for mentoring was to seek advice on overcoming these challenges or gaps in career progression.

"I faced many challenges since I started my academic career. I was awarded a grant from [funder] to re-establish my career and rebuild my networking after two years maternity leave. It did help me broaden my network and set up collaboration with different research institutes. However, my family responsibility make it very challenging for me to maintain and continuing broadening my collaborations. I am very keen to get advice from [a mentor] who has the similar experience with me."

"I am very early on in my research career, having published some research work in a journal article as a second author; however I am struggling to develop my career due to caring responsibilities."

These life challenges are often unavoidable and many academics experience these in their life. In early career stages these challenges can be more difficult and can have an impact on career progression.

Experience of participating in the Shared Characteristics Mentoring activity

Mentees were asked in the end of programme survey about their experience of the Shared Characteristic Mentoring activity. Seven of the 10 mentees who took part in the Shared Characteristics Mentoring completed the survey. One of the participants gave a general reflection on the activity, commenting that it had been:

"[a] fantastic opportunity to gain insight into working in academia with certain personal characteristics. Honest and personal. It has helped me to gain much understanding and therefore confidence."

Analysis of participants' comments to the open text questions in the end of programme survey showed several themes that mentees had found of particular benefit from participating in the activity.

Shared characteristics

Mentees reported that they particularly valued being matched with a mentor that had the same personal characteristics, perspective or experiences as them.

"Personal, one-to-one and repeated, so that trust developed. Matched to someone with the same personal characteristics who had the experience and perspective to offer insight into the reality of progressing in academia with these characteristics. I was so very glad for this honest insight."

"The Inclusion Matter[s] program enabled me to have a mentor who is from under-represented groups like me. We have many [things] in common including culture, education and family background, which made the mentorship more sincere than other programmes I have participated in."

Pairing of mentors and mentees based on their shared characteristics and interests had been facilitated through the use of the SUMAC software, that presented several questions to participants to support matching of potential pairs. The questions participants were asked to answer included: the key areas that could be offered by mentors/ or that mentees would like support in; personal aspects mentors have experienced that might seem useful/ or mentees would like support with; and details about the participants' under-represented characteristics (e.g., black, Asian and minority ethnic (BAME), Disability, Gender, LGBT+). With the number of participants taking part in the activity, a member of the activity team was able to check the SUMAC proposed matches to ensure that, for example, mentors and mentees were not from the same university and department, or if they had been, that both participants were happy with this.

Independent mentor

In general the mentees appreciated the idea of having an independent mentor, where they were matched with a mentor from outside their institution. This allowed them freedom to share, without any fear of bias from their colleagues in their own department. The mentees reported that they had felt safe to discuss their challenges and available options in a safe environment.

"It was a benefit. The issues are cross-institutional so there was no lack of relevance, and there was the security of impartiality."

"There are many benefits to having a cross-institutional programme as below: 1.Expand my external networking. 2.Get advice from a different perspective. 3.Get to know the culture from the different university which helps me think out of the box."

"Beneficial to have reviewers and mentors outside of your institution to gain external perspectives and more impartial feedback."

"Inclusion Matters programme was different in that having a mentor outside my field (rather than from my own department/discipline) gave me an opportunity to talk more freely about my situation without worrying. This made it much more beneficial to me."

One-to-one approach and focused discussion

Mentees appreciated the focussed time given by their mentors and acknowledged the value of this activity. It showed that the time spent in these sessions was used for reflections and sharing ideas for development.

"More one-to-one sessions than I have previously experienced, which has been greatly beneficial. Less generic and more tailored support as a result."

Advantages of online mentoring sessions

Some mentees also reported the advantages of online sessions. This could be useful to explore in future implementations of Shared Characteristics Mentoring programmes (e.g. providing the option for physical or online meetings)

"Positive impact - able to conduct meetings via Teams enabled flexibility, efficiency and none of the awkwardness of face-to-face meetings (also not possible in open plan offices). I find it easier to modify my behaviour with others, as a result of the advice, in email and teleconference also, compared with physical meetings where I feel uncomfortable."

Meeting the stated aims of the activity

The end of programme survey asked mentees about two key stated aims of the Shared Characteristics Mentoring activity, which had been to support participants: to build networks; and to gain exposure to opportunities to allow them to progress and develop in their academic careers.

Seven out of the ten mentees responded to the end of programme survey, however, not all gave answers to all of the questions.

In relation to building networks, all six mentees who responded to the question stated that the Shared Characteristics Mentoring activity had supported them to build networks.

Four out of the six mentees stated that it had supported them to gain exposure to opportunities to allow them to progress and develop in their academic careers. Two mentees stated that it had not helped with this. Open response answers from participants in the end of programme survey gave insights into some of the challenges participants had encountered related to implementing advice. One reason was the short period of time between the end of the activity and the point of evaluation:

"The mentor gave me great help and advice on job hunting/application, however, I didn't get time to apply for any job during the programme time."

In addition, one participant explained how their particular research field presented unique challenges for them as well:

"My mentor encouraged me to look for a lecturer job because he thought I was qualified for this role. However, the job opportunity is very limited in my research area. So this became a barrier for me to implement the advice from my mentor."

Online Platform

All seven of those participating in the Shared Characteristic Mentoring activity who completed the end of programme survey stated that they had accessed the Online Platform; however only two reported that they had used the resources on the Online Platform as part of the activity itself. One reported that they had used it more than three times, with the other stating that they had accessed the platform 2-3 times over the course of the programme. Neither had used the Online Platform to discuss any issues that arose as part of the activity. This may be because the mentoring sessions took place outside the platform and that the forums on the Online Platform were not able to be set up as anticipated (as discussed in the Online Platform results section). The training materials for mentors and mentees, including videos, a handbook/guide and links to other resources were openly accessible to all Northern Power Inclusion Matters participants on the Online Platform, and the resources will continue to be available on the programme website after the end of the programme.

Barriers to participation

The number of mentors that signed up to participate in the activity meant that not all potential mentees could be matched. Three potential participants, that had not been matched with a mentor, commented that they were disappointed that they had not been matched. Their impression had been that the strict requirement to match on shared characteristics may have been a barrier to their participation.

"The barrier to my participation seems to have been, ironically, my own protected characteristic. For the shared characteristic mentoring activity, I feel that this led to my exclusion from participation."

The activity development team's approach was adapted from initially being focused on protected characteristics to include shared/under-represented characteristics (e.g. 'first in academia in your family', 'balancing children and work', 'parental leave and caring commitments'). The matching procedure the SUMAC system took into account not just protected characteristics but also matched on the mentee's key areas they needed support in (collaborative funding experience/ developing academic networks, career development advice, navigating shared/under-represented characteristics/sharing excellence in the research field) and personal aspects they would appreciate support on (developing work-life balance/navigating their career with an under-represented identity/building networks/building personal confidence). In future development of a Shared Characteristics Mentoring programme, the activity developers suggested that they would recommend relaxing the selection of mentors to include mentors who are sensitised/can empathise with the shared characteristics of the mentee. This would help overcome the barrier of low numbers of mentors available, another solution suggested would be to have mentors mentoring more than one mentee.

The importance of managing applicants' expectations of likely success, or timescales for potential matching, are clearly important in ensuring that there is an understanding that by aiming to select close matches for participants based on under-represented characteristics, this can mean that an appropriate match may not be possible.

Covid-19 had led to logistical challenges for some of the participants. However, despite the challenges introduced by Covid-19 restrictions, all pairs had been able to complete the minimum target of four mentoring sessions, with some pairs meeting beyond this number of times.

"Covid prevented meeting my mentor in person until lockdown lightened, but even then it felt strange to meet with masks etc."

"Unable to meet face-to-face, unstable internet connection during meetings."

Interviews with mentors

Three mentors were interviewed to understand their perspectives of participation. The main themes that emerged were of mentoring being a natural activity and that it involved a time commitment.

Mentors reported that most senior colleagues engage in the mentoring process without it being a formalised process or receiving formal recognition for their efforts. Mentors commented:

"It is part of what I do on daily basis. Making it a formal process can make this a job with time commitment and no academic would want to do it as a job."

"I have mentored several students and colleagues in my life. I have never felt that it needs to a formalised activity. Yes, the advantage of mentoring is not fairly distributed but a lot of it depends on those who seek it those who do not want to depend on it."

"The session with my mentees were very productive. We shared cross-institutional practices and it was interesting to know that the universities have similar challenges and targets to meet."

Mentors commented that mentoring is a big commitment of time but that they considered it to be worthwhile it as it helps in transition of knowledge and experience to the next generation.

"It takes time to invest in development of early career academics and we all have been there. It is understandable that anxieties and stress have increased in academia but we have all seen our challenges."

"Sharing experience can be helpful and as mentors it is commitment of time which most of us do without recognition. This is part of academic practice."

Reducing steps for accessing the activity

As discussed earlier in the findings, mentees reported that they had found it beneficial to be matched to their mentor based on shared characteristics and interests. The SUMAC software had been used to facilitate this, along with manual checking of the matches by the activity team.

The use of the SUMAC matching software involved participants completing a second registration document which asked for some of the same information as had been requested in the programme registration form and baseline survey. It had been hoped that this information could be preloaded into SUMAC but because of GDPR and software issues this was not possible. There was initial concern that by asking for this information for a second time, along with the need for participants to agree to a second set of documentation (participation agreement, privacy notice and information sheet) this may have led to some participants deciding not to pursue this activity. However, reflecting on the process, the developers noted that they did not feel that had been the case and that participants were working in institutions with strong GDPR and ethics policies, and so would have been aware of the requirements for such procedures.

Future implementation

In end of programme discussions, the developers reflected on future refinements to the activity. They considered that the key added value of Shared Characteristics Mentoring is the ability to meet someone from the same under-represented group who can understand, empathise, and advise from their personal life experience. Therefore, their recommendation was that empathy can be a main catalyst for the success of the activity. On the other hand, they considered that the activity can have a negative impact on mentees when there is no match with a mentor from the same under-represented group. They felt that this can have a detrimental impact due to the under-representation of the individual exacerbating their lack of confidence and integration in the research community. In future development of a Shared Characteristics Mentoring activity, the developers considered that they would recommend the relaxing of matching criteria in circumstances such as an imbalance of numbers of mentors and mentees, to enable as many participants as possible to engage in mentoring. For example, mentors who have experience in working with researchers from an under-represented group can be allocated to mentees from this specific under-represented group.

The programme developed a range of mentoring resources adapted for people from under-represented groups, including gender, ethnicity, sexual orientation, disability. All resources are openly available from the project website. The developers of the activity envisage extending the resources with more topics (e.g. confidence and imposter syndrome) in future development of the Shared Characteristics Mentoring activity.

Twenty individuals, matched as 10 mentor-mentee pairs completed the Shared Characteristics Mentoring activity and the developers considered this to be very positive. Mentees reported that they had found the experience of being mentored by someone with a similar background or interests to themselves to have been extremely beneficial. Mentees also reported that it was beneficial to have independent advice from a mentor outside of their own institution. The activity team had trialled alternative approaches to reduce the impact of a higher number of mentees than mentors signing up to the programme, including the introduction of relaxed matching requirements and providing access to online materials in cases where no match was possible. The team also launched a comprehensive targeted recruitment campaign to recruit mentors to the programme. All participants that responded to the question in the end of programme survey felt that participating in the Shared Characteristics Mentoring activity had supported them to build their networks.

Reciprocal Mentoring

Key findings:

1. Eleven pairs of mentors took part in the Reciprocal Mentoring activity. Junior mentors were from five institutions and senior mentors from six institutions, including both HEIs and Industry Partners.
2. Nine out of 11 junior mentors responded to the end of programme survey, with all reporting that participation in the activity had enabled them to share their experiences with a senior leader as someone from an under-represented group, and had provided them with advice from a senior leader.
3. Senior mentors that were interviewed indicated that they considered Reciprocal Mentoring to be a feasible method of gaining insights into the challenges and barriers faced by staff in general, and in particular for ECRs.
4. When interviewed at the end of the activity, some senior mentors suggested that Reciprocal Mentoring could be considered as a strategy for providing a space for under-represented groups to add their voice to policy development initiatives.
5. All interviewed senior mentors said that it was an excellent learning experience and they would want to recommend it to their institutions.

Description of the activity

The aim of the Reciprocal Mentoring activity was for junior mentors to share with a senior leader their experiences of being part of an under-represented group, and to benefit from advice from a senior leader with the additional potential for gaining networking and leadership development opportunities. Additionally, the aim was for senior mentors to have the opportunity to learn from interactions with junior mentors to inform decision making and policy development. The longer-term aim was for senior mentors to use their insights to change institutional approaches to policies and practices to benefit the development and progression opportunities for under-represented groups.

Due to the short timescale between participants taking part in the activity and the point of evaluation, changes in policy and procedures are unlikely to be evident. As such, the information collected from interviews with senior mentors at the end of the activity reflected their experience of participation, the feasibility of the process and perceived importance of Reciprocal Mentoring.

Early Career Participants (ECPs) applied to be junior mentors through the online registration form and Participant Allocation Process (PAP) process. Senior leader participants were approached either by members of the activity team or by project partners and asked to take part in the activity. After initial agreement to participate, ECPs completed an online matching questionnaire, and senior leader participants were taken through a set of matching questions in an interview with the activity lead.

Participants (both ECPs and senior leaders) who were accepted onto the Reciprocal Mentoring activity, took part in one of 12 formal small group training sessions, led by an experienced trainer. Sessions were between 60-90 minutes long (depending on group size) and took place via online video conferencing software. ECPs and senior leaders attended separate training sessions, which took place prior to participants being matched.

Following training, participants were matched on their personal characteristics, institutional roles and interest in institutional-level policies. The matching was undertaken manually by a small panel including the activity team lead. This was possible due to the small number of participants involved and allowed for in-person or telephone matching interviews to be undertaken with senior leaders.

By the end of the evaluation period some junior mentors had not yet been matched with a senior mentor. Reasons included the later enrolment of some senior leaders and delayed communications from participants. The activity team were able to match further pairs after the end of the evaluation period, and these pairs have since commenced the Reciprocal Mentoring activity.

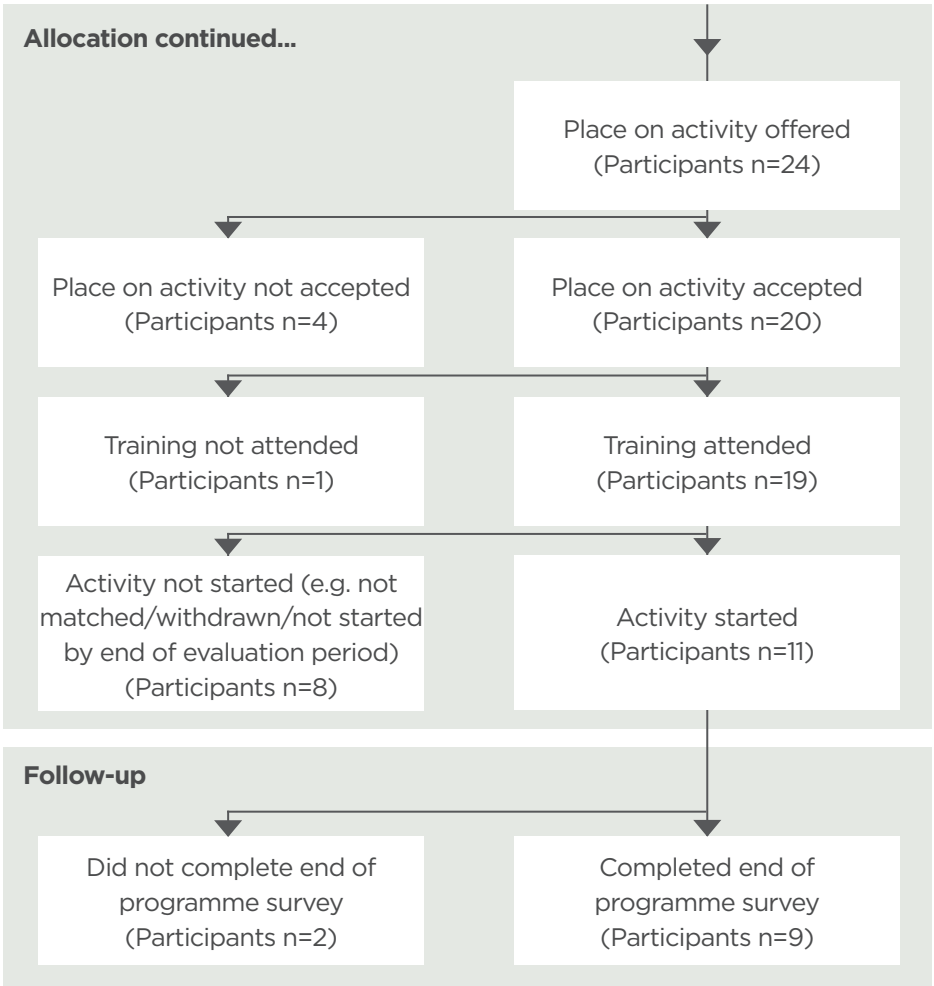
Once matched, the pairs committed to meeting at least twice over the duration of the activity. By the end of the evaluation period, eight pairs had met for minimum of two meetings, with a further three meeting at least once. Several pairs continued meeting beyond the minimum required number of sessions, with one pair meeting a total of nine times before the evaluation end date.

Participants

The participant flow diagram for the junior mentors on the Reciprocal Mentoring activity is shown below (Figure 7). Participants interested in being a junior mentor signalled their interest in this activity through the baseline registration form. They were then potentially offered a place through the PAP. By this process, 24 participants were allocated to the activity with all 24 subsequently being offered a place as a junior mentor on the activity. Twenty accepted their place with four not accepting. Nineteen participants then attended the required training session. Of the 19 that attended training, 11 had been matched with a senior mentor and had started the mentoring activity before the end of the evaluation period. Eight participants had not been matched, withdrew or had not started mentoring sessions before the end of the evaluation period. The matching continued after the end of the evaluation period and since that point a further two pairs started the activity.

The eleven participants who took part as junior mentors in Reciprocal Mentoring were from five institutions and were matched with senior mentors from six institutions (from four HEIs and two Industry Partners). Eight of the junior mentors identified as early career and three as established career. Seven of the Reciprocal Mentoring pairs were matched across institutions, with four matched within the same institution.

***Figure 7**. Participant flow for Reciprocal Mentoring (junior mentor). Note that the first stage of the allocation process is described in the Participants section at the beginning of the Results section.*



Junior mentors were asked which of the under-represented characteristics highlighted by the project they identified with. Participants were able to select more than one characteristic. The characteristics are shown in Table 31 and the number of characteristics selected by participants is shown in Table 32.

***Table 31**. Under-represented characteristics participants identified as. Participants could identify with more than one characteristic (The total number of participants = 11). Where there were more than zero but fewer than five participants reporting a characteristic, this is reported as <5, to preserve anonymity.*

Under-represented characteristic	Number of participants
Black, Asian and minority ethnic (BAME)	7
Disabled	<5
LGBT+	<5
Woman	5
Other	<5

***Table 32**. Number of under-represented characteristics participants identified with (The total number of participants = 11).*

Number of characteristics selected	Number of participants
1	8
2	2
3	1

Junior mentors' career profile

Based on their responses to the baseline survey, the 11 junior mentors on the programme had been in their current role for an average of 3.2 years (a range of between 0 and 9 years) and at their current institution for an average of 5.8 years (a range of between 0 and 14 years). Ten participants had completed a PhD, with three having taken a career break and two having worked outside academia for a period of time. Six of the 11 junior mentors had a permanent contract, with the other five being on fixed term contracts.

Junior mentors initial expectation and motivation for participation

From open text responses within the baseline survey, two main themes emerged from those indicating an interest in taking part in Reciprocal Mentoring: confidence and visibility; and impact on policy.

Confidence and visibility

Junior mentors stated that they hoped participation in the Northern Power Inclusion Matters programme would help them to gain confidence. Leading projects and research teams can be an important criteria for progression and promotion. It can be a challenge for ECRs to gain opportunities due to lack of confidence. Visibility and confidence can play an important role in enhancing opportunities and Reciprocal Mentoring was expected to help them towards these aims.

"Lack of confidence and self-esteem have been the biggest challenges... I have relied heavily on supportive mentoring influences in my life to provide me with the confidence I know I lack. This is perhaps a chance to gain confidence in a different way."

"I am hoping that this project will help to improve confidence for leading teams, gain greater understanding of my personal leadership style, and how my background and experiences shape this."

Impact on policy

Junior mentors were aware of policy related barriers and for some, Reciprocal Mentoring was a chance to understand the process of policy development and implementation on their careers, and in general on the overall environment within institutions. Excerpts from participants' personal statements in the programme registration form provide examples of how they hoped to contribute towards positive changes in policy and institutional environment:

"I would wish to participate in reciprocal mentoring as I am fascinated by the way in which good policy doesn't always translate into cultural change on the ground. I both wish to explain the way in which this has impacted me as woman and to understand how this issue impacts people at the top of the university management structure. My hope is that by putting together both halves of this story we can find ways to solving the problem of implementation and communication."

"I am always willing to share these experiences in order to help develop a more inclusive environment in HE."

Junior mentors' experience of the Reciprocal Mentoring activity

Nine out of the 11 junior mentors on the Reciprocal Mentoring activity completed the end of programme survey (Table 33).

All respondents reported that they felt that participation in the activity had enabled them to share their experiences with a senior leader as someone from an under-represented group and had provided them with advice from a senior leader.

Eight out of the nine respondents considered that participating in Reciprocal Mentoring had provided them with support from a senior leader (with one stating that it had not provided this).

Six out of the nine respondents reported that the activity had provided them with new networking development opportunities and with new leadership development opportunities. Three respondents reported that they did not consider that participating in the Reciprocal Mentoring activity had provided them with these opportunities.

***Table 33**. Junior mentors' responses to the question 'To what extent do you feel that the Reciprocal Mentoring programme has ...*

	A lot	A little	Not at all	No response	Total
enabled you to share your experiences with a senior leader as someone from an under-represented group	7	2	0	2	11
provided you with advice from a senior leader	5	4	0	2	11
provided you with support from a senior leader	6	2	1	2	11
provided you with new networking development opportunities	4	2	3	2	11
provided you with new leadership development opportunities	4	2	3	2	11

Junior mentors were asked if they would like to provide any further comments on the Reciprocal Mentoring activity in the end of programme survey. Respondents commented on the time that senior mentors had taken to engage with the process and the range of discussions that had been had. Participants also commented that the training received had been excellent.

"Had an excellent [senior] mentor. As an unguided process we had a lot of freedom to choose what we discussed, and we met 1-4 times a month to discuss current situations and the approaches our respective employer/peers were taking. This was a really enjoyable experience that I learned a lot from and I hope more people get to benefit from this in future."

"The training in advance of the reciprocal mentoring was excellent."

An area which one junior mentor commented on was around assumptions being made about similarities and differences between organisations. This is something which may be of interest to explore further in future development of the activity.

"It was a very good experience overall and my mentor was really good in the role, but the cross institutional nature meant that it was a little too easy for the senior mentor to say 'well that would never happen here' when it's not so clear that it doesn't."

Online Platform

Junior mentors were asked in the end of programme survey about their use of the Online Platform for the Reciprocal Mentoring activity. When asked whether they had accessed the platform, five out of the nine respondents to the survey stated that they had not accessed the Online Platform (with one stating that they preferred not to say). All three that had accessed it, indicated they used it 2-3 times over the course of the programme. The Platform contained resources for Reciprocal Mentoring which included refresher videos from the external trainer, EDI information, podcasts, TED Talks videos, further reading (including journals) and documents relevant to the activity.

Barriers to participation

In addition to the 11 junior mentor participants that fully participated in the Reciprocal Mentoring activity, eight participants completed the training to be a junior mentor but were not matched to a senior mentor. Of these eight, four withdrew and four were unmatched at the point of the end of the evaluation. Three of these participants responded to the end of programme survey with two commenting on the process of training prior to matching. They expressed differing viewpoints on the timing of the training relative to being matched with a senior mentor.

"I didn't take part in any mentoring conversations due to delay in matching, but the training was interesting"

*"...inviting participants to take part in active listening training before they've been matched to someone is problematic. This should be run the other way around so that if (as in my case) no mentor is found, then the participant has not become emotionally invested in it, as I did. As I was not matched, I was led to feel that my participation in this activity was a waste of time." **

It had been a conscious decision by the activity team to place the training before matching. This enabled participants to be ready and prepared to start the mentoring process as soon as they were matched. In addition, if participants were unsuccessful in being matched then they would still have received some developmental support through the skills training. The activity team reflected that while this had been communicated to participants at the outset, managing participants' expectations and reinforcing this message to participants would have been beneficial and something they would include in future iterations of the activity.

The participant who provided the second comment above felt that more guidance on answering questions in the matching process would have been useful, and that there was no opportunity to revise these after no match to a senior mentor had been found. They noted:

*"I would have been happy to have been matched to literally anyone, where the alternative is being excluded from participation in the project."**

*The participant has subsequently been matched with a senior mentor after the end of the evaluation period.

One challenge was that whilst it had been relatively easy to recruit early career participants in the early stages of the programme, the recruitment of senior leaders took place over a much longer period of time, and had continued beyond the end of the evaluation period. Gaining access to senior leaders in partner organisations was challenging and this was exacerbated by Covid-19, given the huge logistical challenges HEIs were facing in moving to remote working and online teaching provision. As such, matching took place over a far longer period of time than initially anticipated. The team reflected that earlier and more regular contact with unmatched participants would have been beneficial in managing expectations and providing the opportunity to revisit matching requirements so these could be revised if necessary to allow matching with a mentor at an earlier stage.

Senior mentors' experience of the Reciprocal Mentoring activity

Interviews with four senior mentors provided insights into their understanding of the challenges faced by ECRs from under-represented groups. Several themes emerged in these informal interviews: common challenges across institutions, sharing best practice and policies, and the need for more data.

Senior mentors who were matched cross-institutionally with junior mentors gave very positive feedback. They recognised the challenging nature of such pairing and difficulties involved in sharing personal information with colleagues.

Senior mentors commented that challenges faced by under-represented groups were commonly observed in their own institutions. One common challenge observed was that academic progression thresholds are challenging to achieve and the nature of support available to ECRs and under-represented groups sometimes is not sufficiently provided.

Senior mentors also felt that some institutional policies needed changing to support the well-being and mental health of ECRs. An example of such a practice was a long probation time where ECRs experience challenges and stress over an extended period of time. These challenges were common across institutions and potentially there is a need to share institutional practices which benefitted the under-represented groups. One senior mentor shared an example of their institutional policy where they had strategically established a framework of support and mentoring for ECRs until they pass probation.

The interviews with senior mentors also directed attention towards capturing data using methodologies such as longitudinal studies. Trajectories of academics' careers, success, academic breaks, health, mobility across institutions etc. can provide important information on the challenges faced by under-represented groups. Interventions and programmes can then be tailored based on longitudinal study data.

One senior mentor said that participation in Reciprocal Mentoring made them realise the need to have an emphasis in university policies on staff mental health and wellbeing. The senior mentor said that academic jobs are stressful in many ways but some groups are affected more by these challenges. Institutional structures and policies need to provide spaces for such under-represented groups to add their voices for positive changes. The senior mentors said that Reciprocal Mentoring was one such strategy that institutions should adopt for policy development initiatives.

Adaptions and future implementation

The activity team commented in end of programme discussions that managing participant expectations is a key part of the process; for some junior mentors there were longer than anticipated gaps between recruitment, training, matching and the start of the activity. The need for regular communication, and the opportunity to relax some matching requirements was very important with regard to participant experience and would be included in future iterations of the activity.

Online Platform

Key findings:

1. Twenty-three participants (of the 41 that completed the end of programme survey) reported that they had accessed the Online Platform.
2. Over the period of the evaluation when the platform was live for participants (May 2020 – 4th February 2021), the Online Platform was visited 330 times, with 169 visits to activity module pages. These figures include participants on activities as well as people external to the programme accessing the guest area.
3. Of the 23 participants who reported in the end of programme survey that they had accessed the Online Platform, 14 agreed or strongly agreed that it provided access to advice, 15 agreed or strongly agreed that it provided access to support and 12 agreed or strongly agreed that it provided access to useful webinars.
4. Twelve out of the 23 participants who reported in the end of programme survey that they had accessed the Online Platform, felt that they had gained knowledge or insights and nine felt they had gained advice from the Online Platform.
5. Only three out of the 23 respondents to the end of programme survey reported that they had passed on knowledge or insights via the Online Platform and four out of 23 stated that they had shared advice on good practice via the platform.
6. Overall, participants accessed the platform for specific activities and did not return for follow on. Lack of returning was considered to be due to the static content provided by the activities and due to there being little content for early participants to engage with, as for some activities online content was being developed at the same time as activities were taking place.
7. There had been an expectation at the start of the programme that forums would be widely used in some activities, although this did not happen. The Padlet boards, which were introduced at a later stage, did provide a means for knowledge sharing on the Online Platform.
8. The guest space was expanded during the programme to allow more people to access materials.
9. Content developed by the activities in the project is available from the project website: https://northernpowerinclusion.org/

Description of the activity

The Online Platform contained resources to complement the activities within the Northern Power Inclusion Matters programme. The platform was launched in May 2020. There was a lobby area containing a calendar of upcoming events and some general resources (referred to as the guest area). Resources for particular activities could only be accessed by those registered to the Online Platform and to a particular activity. Guest access provided access to open resources for anyone interested in the main activities of the project.

There were several steps in the process of allocating participants to activities and registering participants on the Online Platform. These steps were created to ensure full GDPR and ethics compliance:

1. The Participation Allocation Panel (PAP) allocated participants to activities and the Online Platform.
2. In parallel, the individual activity teams and the Online Platform team contacted participants with participation agreement forms, information sheets and privacy notices specific to their activities.
3. On receipt of the participation agreement form for the Online Platform back from participants, the Online Platform team created an account for the participant which gave them access to the guest area including a calendar and some general content.
4. As the participants returned their participation agreement forms for the other individual activities, the Online Platform team were informed about which additional areas the participants required access to. The central project management team then worked with the Online Platform team to enrol each participant onto their relevant activity areas, and notified individual activity teams who had been enrolled and when. It was the responsibility of each activity team to monitor and follow up with participants if necessary. Where possible, stages 3 and 4 took place at the same time so that participants had immediate access to both the guest area and activity areas.

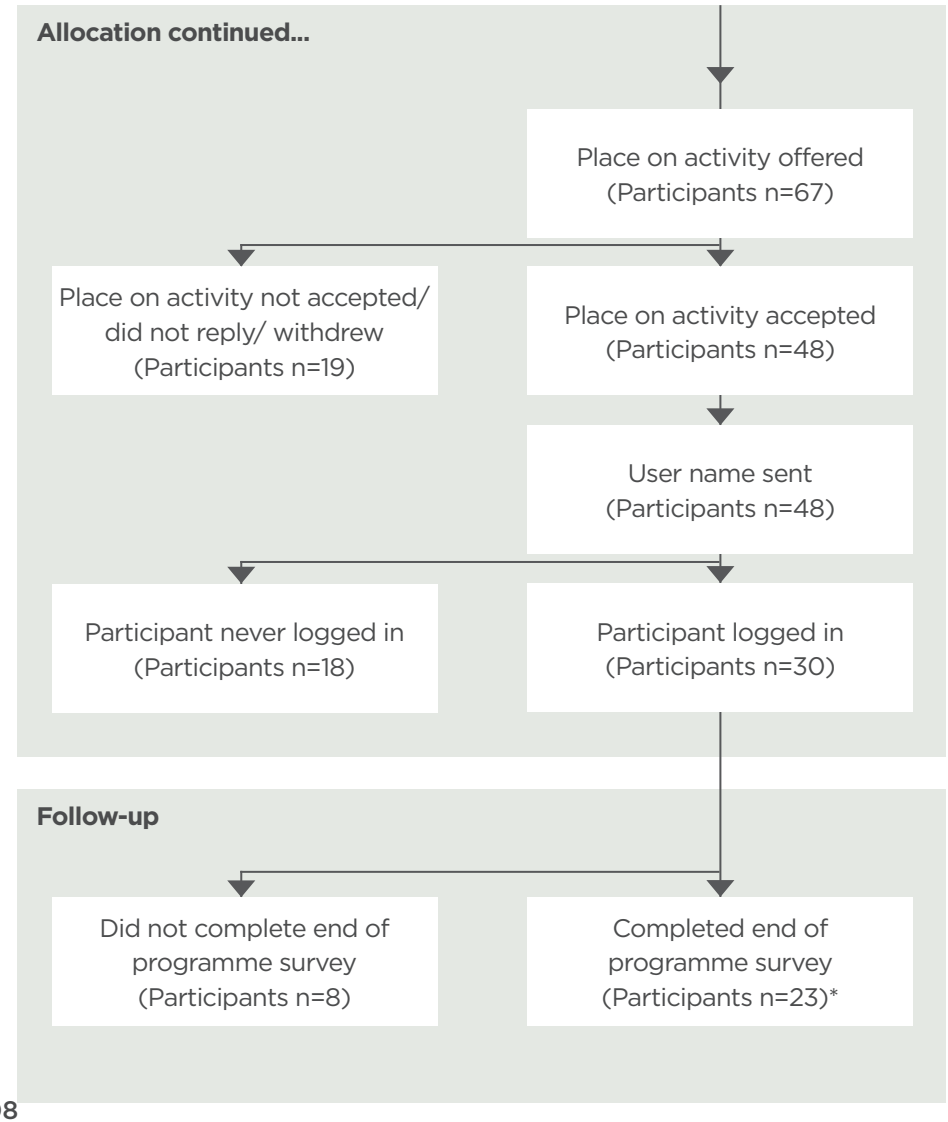
In August 2020, content on the Online Platform started to be moved from individual activity areas into the guest area to allow wider access to the content. Activity leads decided which content remained in their restricted activity area and which was moved to the open guest area. Additional links to external resources related to equality and inclusion (e.g. inspirational videos or training courses) were added in the guest area.

In order for the content to remain available after the end of the project, content was copied from the Online Platform (northerpowerinclusion.com) to the website (northernpowerinclusion.org) which is hosted by one of the partner HEIs.

Participants

Applicants who completed a registration form and were eligible for the Northern Power Inclusion Matters programme were invited to register for the Online Platform, regardless of whether they were allocated to any other activity. Figure 8 below describes the participant flow through the activity (not including senior reciprocal mentors). In total, when senior reciprocal mentors are included, 77 applicants were invited to register for the Online Platform, including two people from industry who registered for the project through the EDI in EPS activity and ten who were recruited as senior reciprocal mentors. Participation agreement forms were not returned by 19 participants (and four senior reciprocal mentors), meaning they were not sent a user name and password for the Online Platform. A further 18 participants and one senior reciprocal mentor) were sent a user name and password but never logged in. In total, 30 participants accessed the platform at least once (35 if senior reciprocal mentors that were not part of any other activity are included).

***Figure 8**. Participant flow for the Online Platform (not including senior reciprocal mentors). Note that the first stage of the allocation process is described in the Participants section at the beginning of the Results section. *this includes one user who stated they had used the Online Platform, but that had not logged in with their user ID.*



Under – represented characteristics

A question on the baseline registration form asked participants to indicate which of the under-represented characteristics highlighted by the project they identified with (Table 34 and Table 35). Data for the senior reciprocal mentors was not collected.

***Table 34**. Under-represented characteristics participants identified with in the baseline survey (n=67). *Some participants chose not to select any of the under-represented characteristics. Where there were more than zero but fewer than five participants reporting a characteristic, this is reported as <5, to preserve anonymity.*

Under-represented characteristic	Place on activity not accepted/did not reply/withdrew (n=19)	Participant never logged in (n=18)	Participant logged in (n=30)
Black, Asian and minority ethnic (BAME)	8	<5	14
Disabled	<5	0	<5
LGBT+	<5	<5	5
Woman	12	12	19
Other	<5	5	6
None*	<5	<5	<5

***Table 35**. Number of under-represented characteristics participants identified as in the baseline survey (n=67). Where there were more than zero but fewer than five participants reporting a characteristic, this is reported as <5, to preserve anonymity.*data from use access logs.*

Number of characteristics selected by applicants	Place on activity not accepted/did not reply/withdrew (n=19)	Participant never logged in (n=18)	Participant logged in (n=30)*
0	<5	<5	<5
1	11	10	15
2	<5	6	8
3	<5	0	5
4	<5	0	0

Use of the Online Platform

Data about the Online Platform were collected in two ways. Questions in the end of programme survey about the Online Platform were designed to explore how participants had perceived using the Online Platform, whilst data from activity logs on the Online Platform software shows usage; number of times the Online Platform was accessed and the number of times modules were visited.

Data from the Online Platform activity logs

Access and usage data were collected for the Online Platform. Two sets of data were analysed by user ID (guest use had a single ID); login data and usage of modules.

Table 36 shows the number of times the Online Platform was logged into over the duration of the programme. Activity by members of the project team was removed from the data except where they were participating in an activity. Participants were enrolled onto the platform from May 2020 onwards and so data is restricted to May 2020 to 4th February 2021.

During this period, 35 participants with a user id logged onto the Online Platform 124 times, during which 121 visited at least one of the activity module pages. In the same period, guests logged 206 times, including 48 visits to at least one of the module activity pages. The totals are given in Table 36 and a breakdown given in Table 37. All activities encouraged use of the Online Platform, however, the extent to which activities encouraged use varied (Table 37). In some cases, the Online Platform was not accessible to participants at the time that the activities ran (e.g. EDI in EPS event). Access to resources for some activities was restricted to only participants on the activity (e.g. Reciprocal Mentoring and University-Industry Collaboration) and hence, access to these resources from a guest login was not possible.

***Table 36**. Number of times users logged into the Online Platform in the period May 2020 to 4th February 2021 from Online Platform log data. Note that the guest account uses a single identifier, so the number of individuals logging into the Online Platform is not known.*

	Number of visits	Number of visits to activity module pages	Participant logged in (n=30)
With an account	124	121	14
As a guest	206	48	<5
Total	330	169	5

***Table 37**. Number of users and visits to activity specific modules on the Online Platform between May 2020 and February 4th 2021 from the Online Platform log data. *Note that all logins as Guest are recorded as a single user ID – no inference can be drawn as to the number of people logging in as Guest. ** Area accessible only to registered users and not guests.*

	No. Registered Users	Visits	Guest Visits*	Total Users	Total Visits
Shared Characteristics Mentoring	16	37	19	17	56
Reciprocal Mentoring	12	20	0**	12	20
Networking and Leadership	1	1	12	2	13
University-Industry Collaboration	7	9	0**	7	9
Padlet	20	29	0**	20	29

Google analytics provided an overview of how users navigated to the Online Platform. Table 38 below shows that nearly all users had navigated to the Online Platform directly i.e. they had been provided with the URL.

***Table 38**. How users navigated to the Online Platform from Google Analytics data for the Online Platform (n=410).*

Navigation method	% of users
Direct	85
Via a search engine	5
Via a university site	5
Other	5

Self-reported Online Platform use

Knowledge and skills gain

In the end of programme survey participants were asked whether they had accessed the Online Platform (Table 39). Participants could answer in the affirmative even if they had not registered for an account because they could log in as a guest. Of the 41 responses to the end of program survey, 23 reported that they had accessed the Online Platform.

***Table 39**. Responses to the end of programme survey question 'Did you access the Online Platform?' (n=41)*

	Yes	No	Prefer not to say	Total
Registered with Online Platform	19	2	1	22
Not registered with Online Platform (via guest login)	4	15	0	19
Total	23	17	1	41

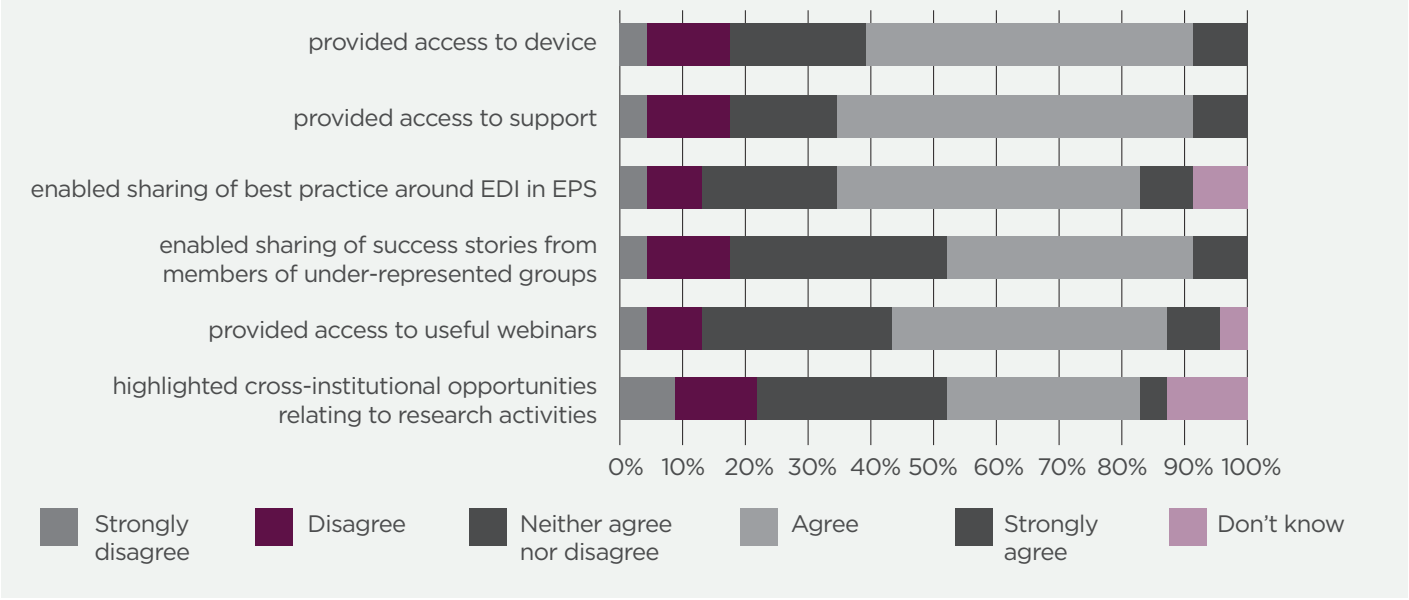
In the end of programme survey participants were asked whether they had accessed the Online Platform for resources not specific to an activity (Table 40). Twenty participants replied that they had with 13 having accessed it for this purpose more than once.

***Table 40**. Responses to the end of programme survey question "How many times did you access the Online Platform for resources which were not specific to an activity (e.g. guest space/project resources)?" (n=41).*

Number of times the Online Platform was accessed	0	1	2 - 3	>3	Prefer not to say	Total
Registered with Online Platform	3	6	10	1	2	22
Not registered with Online Platform (via guest login)	15	1	2	0	1	19
Total	18	7	12	1	3	41

In the end of programme survey participants were asked whether the Online Platform as a whole had provided access to advice, support and useful resources (Figure 9). Of the 23 who said that they had accessed the Online Platform, 14 agreed or strongly agreed that it provided access to advice, 15 agreed or strongly agreed that it provided access to support and 12 agreed or strongly agreed that it provided access to useful webinars.

***Figure 9**. Responses to the end of programme survey question "To what extent do you agree with the following statements about the Online Platform? The platform..." (n=23).*



Further questions in the end of programme survey asked whether participants who had indicated they had used the platform (n=23) had gained or passed on knowledge or insights and whether they had gained or shared advice on good practice via the platform. The results are shown in Table 41 below. Twelve out of 23 respondents felt that they had gained knowledge or insights and nine felt they had gained advice from the Online Platform. The opportunities for sharing knowledge on the platform included forums and Padlet boards. While these were provided, some activities chose not to use them. This corresponds with the findings from the survey responses that show that only three out of the 23 respondents to the end of programme survey passed on knowledge or insights via the Online Platform and four out of 23 shared advice on good practice via the platform.

***Table 41**. Responses to the end of programme survey questions as to whether participants had shared or gained knowledge, insights or good practice via the Online Platform (n=23).*

	Yes	No	Prefer not to say
Did you gain any knowledge or insights via the Online Platform?	12	9	2
Did you pass on any knowledge or insights via the Online Platform?	3	18	2
Did you gain any advice on good practice via the Online Platform?	9	10	4
Did you share any advice on good practice via the Online Platform?	4	18	1

Barriers to accessing the activity

Participants who had accessed the Online Platform were asked for any additional comments. Of the 23 able to add a comment, five did so. One respondent said they did not have time to use the Online Platform as they would have wished and two participants referred to the lack of content or lack of activity. The Online Platform activity team also highlighted that they considered that lack of engagement with the platform was likely to be partly due to the static nature of content. In general, activities developed content that was used at the start of the activity but was not needed for later usage; there was little update or extension of content. Two respondents referred to difficulties in accessing and/or navigating the Online Platform. Accessibility and design were improved for later stages and the guest space was developed, but these participants may have not accessed the platform after the navigation was updated.

Comments were received from 12 respondents to the end of programme survey around why they had not accessed the Online Platform. Six responses cited time pressures, with other reasons given including: missing the email invitation to join the platform; not being able to log on; or not feeling use of the platform was necessary.

Delivery

The Online Platform activity team felt that original aims for the Online Platform were rightly very ambitious but that compromises needed to be made for reasons of time, finances, data protection and GDPR compliance, Covid-19 and availability of technical expertise. This therefore impacted on the implementation of content and interaction for the Online Platform. However, the Online Platform activity team felt that the Online Platform was delivered in line with the aims of the project.

The original plan for the project was that there would be a single online presence. However, this was split into two during the development of the programme to comply with data protection and GDPR. The two digital areas (website and Online platform) served different purposes and allowed flexibility in delivery.

The Online Platform activity team explained that the information and registration website is hosted by a partner HEI which allowed easy access for enrolment. However, the sensitive nature of data, the cross-institutional nature of the programme and the necessary compliance with GDPR meant that it was not possible to provide the in-kind resources to host the Online Platform at the partner HEI and so an external provider was sought.

The selected solution, provided by Webanywhere (https://www.webanywhere.co.uk/), was based around Moodle which is an e-learning tool. It served the main needs for providing content to accompany the main activities on the project.

Participants were given access to the platform once general and activity specific content had been prepared and put online. The Online Platform activity team commented that access to the platform for participants was later than originally planned due reworking of programme timelines caused by the impact of Covid-19.

There was an expectation that forums would be widely used in some activities but this did not happen due to limited capacity for moderation. The Online Platform activity team introduced Padlets – an online message board, which allowed some knowledge sharing, however, engagement had been lower than had been hoped.

One of the key findings of the literature review is that user satisfaction and level of usage of online products is affected by the quality of the service, system and information. The delay of content production and lack of updating of content as the activities progressed, therefore potentially impacted on participant engagement with the platform.

Adaptions and future implementation

A large amount of content has been developed over the course of the project for the Online Platform and a priority is to ensure that this content is preserved. The Online Platform activity team considered three levels of sustainability: preservation of the online content developed for each of the activities; preservation of the activity areas along with their content within the Online Platform, for re-use as an activity; preservation of the activity areas and growth of the content within the areas. Due to the level of resource commitment that would be required for the second and third options, the first option (preservation of content only and ensuring it is widely available for use by anyone who can benefit for this) is the approach that has being taken, to ensure open access to activity content as a legacy from the programme. The migration of content to the legacy website for the programme is already underway.

Academic Networking

Key findings:

1. Participants reported that key aspects of the activity had been in supporting them to reframe their existing knowledge and activities into ways that would help them present themselves and take advantage of opportunities in areas such as promotion, conferences and funding bids.
2. For the two (out of four) participants that responded to the end of programme survey, both reported that the Academic Networking activity had helped them “a lot” in providing them with opportunities to: work with someone from the Inclusion Matters programme to identify networking opportunities; access funds to attend networking events; and to gain exposure to opportunities which allow them to progress and develop their academic career. Both participants reported that the activity had provided help (of differing levels) to: work with someone from the Inclusion Matters programme to develop a personal development plan; participate in networking activities that supported personal development; and to build networks.
3. It was useful for the networking advisors to have had a significant experience of how systems and processes work at a university as the advice given to participants proved to be quite specialised and so it was useful to have had a good knowledge of university structures and processes.
4. Due to the Covid-19 pandemic, the digital presence became more important as an area for developing participants to be successful in academic networking.
5. Development of the activity had highlighted a distinction between networks internal to the participant’s HEI and external networks. In order to advise on internal networks, the advisor needed knowledge of the systems and structures in the HEI and so the developed considered there may be an advantage to the advisors being more senior members of staff.
6. An important refinement for the future development of the activity was to raise with participants at the first session, alongside their commitment to networking, the need for the participant to be willing to try things outside their comfort zone.

Description of the activity

Participants attended a series of one-to-one interviews that took place via video conferencing with a networking information advisor. A coaching approach based on the GROW model (with 'Wrap Up' replaced by 'Will') and facilitated by a series of questions (Table 42) led to the co-creation of a Personal Development Plan (PDP) over the course of the first two meetings.[3]

In advance of the activity commencing with participants, a training session was held with network advisors on 17th October 2019. The training involved two trainers, two activity leads and two other members of staff, all from the activity lead institution. Two other potential network advisors had been invited but did not attend. The aim of the training was to train network advisors to have conversations with participants to offer PDP support – how to have a career conversation, to identify the participant's objectives and suggest opportunities. The training introduced skills (questioning, listening), which were practised in pairs and then discussed in the whole group. The GROW model was introduced, with its sections of Goal, Reality, Options and Wrap up, with an opportunity to practise. Questions were asked about whether it would be better to be a senior member of staff (the answer was no), about confidentiality, and about matching of advisors to participants.

The activity lead felt that benefits of the training included strengthening the protocol in safeguarding and process with an acknowledgement that while processes and potential participant responses had been rehearsed, flexibility in approach would be required because some issues may be difficult to anticipate. The activity lead felt that the training was of benefit to staff even if they did not go on to act as an advisor for the activity.

***Table 42**. Questions for participants complete as part of their Personal Development Plan on the Academic Networking activity.*

Goal	What has interested you in registering for this project?
	What do you want to achieve from participating in the Networking programme?
	Where are you now in your career?
	Where do you want to be?
Reality	What actions have you taken so far?
	What career successes have you had?
	What career learning experiences have you had that have proved valuable?
	What type of learning do you enjoy?
	Are there any practicalities to consider?
Options	What alternatives have you explored?
	What networking have you considered?
	What might work for you?
	How might you tackle the issue?
Will	What are the challenges that might cause blockages?
	What might help you to achieve your goals?
	How committed are you to taking action on a scale of 1 – 10?

3. Whitmore, John [1992]. Coaching for performance: GROWing human potential and purpose: the principles and practice of coaching and leadership. People skills for professionals (4th ed.). Boston: Nicholas Brealey. ISBN 9781857885354. OCLC 314840903. The 5th edition was published in 2017: ISBN 9781473658127. OCLC 1004819121.

Development of the PDP was used as the basis of a discussion between the networking advisor and the participant to co-identify networking opportunities. After the first meeting the network advisor contacted the participant with a bespoke list of networking suggestions, which were grouped into the following categories alongside other suggestions raised from the first meeting.

- Internal administrative support networks
- Internal academic networks
- External academic networks
- External business networks
- Developing your online profile
- Additional networks

Second and subsequent meetings focussed on which elements the participant wanted to explore and encouragement for them to take positive steps.

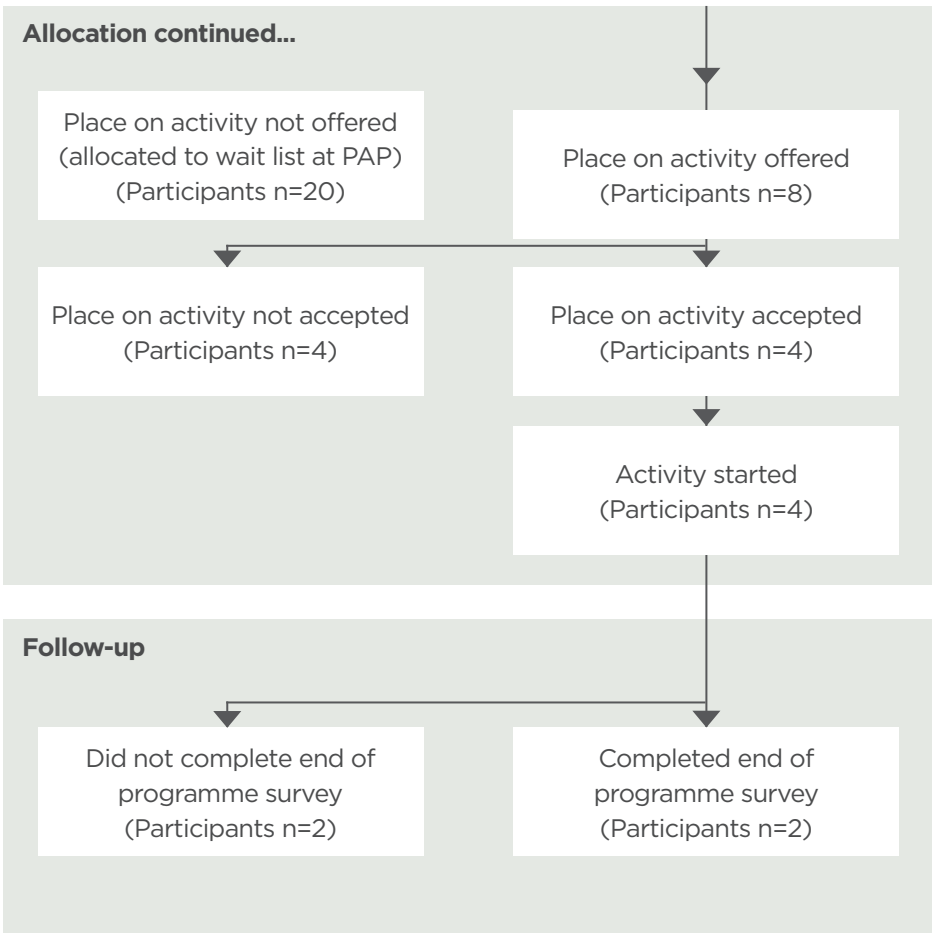
A personal budget of £400 was available for all participants in this activity to support them in undertaking networking activities and events.

Participants

The participant flow diagram for the Academic Networking activity is shown below (Figure 10). Participants signalled their interest in this activity through the baseline registration form. They were then potentially offered a place through the Participant Allocation Panel (PAP). By this process, 28 participants were potentially allocated to the activity, however, due to worries about numbers, the allocation for this activity was not a simple yes/no but had some caveats – 'depending on numbers', 'possible'. Unless there was a specific 'no' to the offer of a position on the activity, these are included in the participant flow diagram. Of the 28 potential participants, eight were offered a place on the activity. Four did not accept the place, with four accepting their place and participating in the activity before the end of the evaluation period. Two participants were interviewed by a member of the evaluation team. Since the end of the evaluation period, a further eight participants have been invited to start this activity. However, it was not possible to include these participants in the evaluation findings as they had not commenced the activity by the end date of the evaluation period.

The four participants on the activity were from two HEIs, two of whom were from the same HEI that was leading the activity. The two respondents that completed the end of programme survey and that took part in the interviews were participants that were not at the same HEI as the activity leads.

***Figure 10**. Participant flow for the Academic Networking activity. Note that the first stage of the allocation process is described in the Participants section at the beginning of the Results section.*



Under – represented characteristics

Of the 28 participants potentially allocated to the activity, five institutions were represented and a range of Engineering and Physical Sciences (EPS) departments. Twenty-seven reported being early career scientists.

A question on the baseline registration form asked participants to indicate which of the under-represented characteristics highlighted by the project they identified with (Table 43 and Table 44).

***Table 43**. Under-represented characteristics participants identified with. Where there were more than zero but fewer than five participants reporting a characteristic, this is reported as <5, to preserve anonymity.*

Under-represented characteristic	Allocated by PAP but not yet invited (n = 20)	Invited but did not take part (n=4)	Invited and took part (n=4)
Black, Asian and minority ethnic (BAME)	8	0	<5
Disabled	<5	0	<5
LGBT+	<5	0	0
Woman	14	<5	<5
Other	<5	<5	<5
None of the above	<5	0	0

***Table 44**. Number of under-represented characteristics participants identified with.*

	Allocated by PAP but not yet invited (n = 20)	Invited but did not take part (n=4)	Invited and took part (n=4)
1	10	3	2
2	4	1	1
3	3	0	1
4	1	0	0
None of the listed characteristics	2	0	0

Knowledge and skills gain

Two out of the four participants on the activity completed the end of programme survey.

In the end of programme survey participants were asked to what extent the networking activity had provided them with opportunities. The results in Table 45 show that all respondents replied that it had helped them at least a little in all questions.

***Table 45**. Responses to the question 'To what extent do you feel that the Academic Networking programme has provided you with the opportunity to...' (n=2).*

	'A little' or 'A lot'
Work with someone from the Inclusion Matters programme to develop a personal development plan	2
Work with someone from the Inclusion Matters programme to identify networking opportunities	2
Access funds to attend networking events	2
Participate in networking activities that supported personal development	2
Build networks	2

In interviews participants referred to gaining knowledge of existing networks, both internal to their institution and external and being encouraged to join. For both the interviewees a key aspect was the reframing of their existing knowledge and activities into ways that would help them present themselves and take advantage of opportunities in areas such as promotion, conferences, funding bids.

Actions and change

Both interviewees had started to implement steps identified in the networking sessions and in one case had achieved positive outcomes. There were more things to do but the participants were intending to do those.

Both interviewees saw this as a real opportunity to engage on a one-to-one basis with a senior advisor who gave them the space and opportunity to raise questions, however trivial, and to discuss issues pertinent to their particular circumstances. The bespoke nature of the activity was shown in one interviewee regularly highlighting 'confidence' and the other 'recognition'.

One interviewee said of the activity *"It transformed me"*.

Differentiation

The activity developers felt that some of the discussions came close to mentoring but that the focus on networking differentiated it. The participants that took part in interviews had no preconceptions as to what the activity would entail but both felt it had been very useful.

Participants stated that the cross institutional nature of the activity had been particularly interesting

"Actually seeing an external perspective on what they're doing at a different institution, how they're valuing people like me who sit between disciplinary spaces and what they are doing elsewhere to encourage that, that's good because that's not really happening at [own HEI]. It kind of makes me feel OK"

In a reflection interview part way through the activity, the activity lead commented that there was an overlap between networking and other sources of support such as mentoring and that networking possibly could and should build in personal as well as professional support.

Barriers to accessing the activity

Participant interviewees cited a lack of time to do everything, partly due to the effects of Covid-19 on workload with teaching moving online. There had been fewer participants than planned able to take part in the activity to date, although more had been invited to take part, this will be outside the scope of the evaluation.

Delivery

The Academic Networking activity developers felt that the networking activity had been delivered in line with the aims of the activity. The approach was planned based on best practice from the literature. However, the move to online working through the Covid-19 pandemic introduced a new perspective on networking; the digital presence had become more important. Some of the work on personal branding produced by the University-Industry Collaboration activity was signposted to participants in the Academic Networking activity.

The format of the networking activity was based on the literature and so aligns with many of the key findings from the literature review. For each participant a needs analysis was carried out jointly by the participant and advisor and the goals were clearly formulated (preparing for promotion, applying for a fellowship) and appropriate for the individual and institution. The literature recommends that both 'hard' and 'soft' skills are necessary. Networking in of itself could be seen as a soft skill and aspects of it can be practised; speaking up in meetings, putting forward suggestions, joining networks but many of the activities identified also required hard skills – completion of applications, presenting to colleagues and at conferences. Although face-to-face working was not possible due to Covid-19, the sessions were individual and personal. This was not a web-based programme but a personal one carried out in an online environment. The time between sessions was long enough for progress to be made in elements of the identified programme but not so long that momentum was lost.

The Academic Networking activity developers felt that the training of network advisors, delivered by the Organisational Development team at the host university, was successful and was a good opportunity for EDI colleagues in the Faculty. Not all the people who did the training were able to act as an advisor; either because they did not feel sufficiently capable or because their workload and capacity was too high. The activity developers felt that it was useful for the advisors to have had a significant experience of how systems and processes work at a university as the advice given to participants proved to be quite specialised and it so it was useful to have had a good knowledge of university structures and processes.

The development team felt that as the Academic Networking activity relied on using other people's time, delays caused by workload increase from Covid-19 and staff turnover conflicted with the timetable of the project. Covid-19 meant that all interactions were online. Although successful both the developers and participants felt more would have been gained if face-to-face meetings were possible.

The Academic Networking development team said that the introduction of GDPR affected the whole of the project including the networking activity in ensuring cross-institution documentation was GDPR compliant.

Adaptions and future implementation

At the time of writing, the activity is continuing in its present form for further participants recruited through the Northern Power Inclusion Matters programme.

In a reflection interview part way through the activity, the activity lead noted that a distinction had been identified between networks internal to the participant's HEI and external networks. In order to advise on internal networks, the advisor needed knowledge of the systems and structures in the HEI and so may need to be more senior members of staff – this is in contrast to the advice given in the training. The discussion identified the potential importance of existing networks the participant had. It was suggested that the networking report that the advisor produces as part of the process could be adapted to include these in the networking list which would therefore become more bespoke. Another adaption that the activity lead considered could be made in the future was to raise at the first session, alongside their commitment to networking, the need for the participant to be willing to try things outside their comfort zone.

The Academic Networking development team felt it was important to embed evaluation and measure impact outside the research environment. The developers have started conversations about potentially incorporating the methods into the progression and/or research development training processes. This activity would then be run by the Organisational Development team who would recruit academic staff to be network advisors, rather than being run by academic staff calling on professional track colleagues to provide training. The activity development team felt that if the activity was to continue then more people need to be trained to become network advisors so that capacity issues are mitigated. The development team felt that the Academic Networking activity lends itself to cross-institutional delivery to engage with and create networks.

University-Industry Collaboration

Key findings:

EDI in Engineering and Physical Sciences (EPS) event

1. Twenty-six participants took part in the EDI in EPS one-day event, from seven HEIs and four industry partners.
2. Nine out of 13 respondents to the post-event survey, strongly agreed that the workshop had provided the opportunity to come together and explore Equality, Diversity and Inclusion (EDI) matters, and seven out of 13 strongly agreed that the workshop had explored why EDI matters in Higher Education (HE) and Industry.
3. Twelve out of the 13 respondents to the post-workshop survey agreed that the workshop had enabled the sharing of practice/ policies/initiatives, with 11 out of 13 respondents to agreeing that the workshop had: built their knowledge and skills in relation to EDI relevant to their discipline; helped them to understand work practices and policies in other organisations.
4. The majority of respondents to the post-event survey, considered that they had already or would change their own practice to be more aware of EDI issues and to actively improve their practice in this area. However, participants did not consider that they could change practice in their own institution, with perceived barriers including: organisational resistance and reluctance to change; large organisations being hard to change; the scale of the changes required; and the position of the respondents not being one which had influence.
5. Actions that respondents to the post-workshop survey reported that they had taken away from the event included: ideas for new events; altering presentations due to having gained a greater understanding of disability; raising issues around female equality in their own department; reviewing key learning from the event with their teams at work; cascading information to their local leadership team; new connections and conversations; embedding EDI within a cycle of constant review; using gender neutral examples in classes and ensuring learning materials are gender neutral; calling out incidents; being more aware of privilege. One participant had already run a version of one of the workshop activities with their colleagues.
6. Participants considered the event to be effective and that it differed to other EDI events due to: the range of talks, participants and perspectives at the event; the use of examples/case studies to show challenges that had been faced and solutions that had been used to overcome them; the interactive, open, conversational, informal nature of the session; and the positive attitude of attendees and open ethos.
7. The contribution from speakers and attendees from both academia and industry was considered to be particularly effective, along with the topics having personal meaning to some of the speakers, was felt to have made the event stand out.
8. The importance of all speakers using the microphone during events for those with hearing difficulties, and the need to call out and challenge immediately any behaviour of participants that is not appropriate, were highlighted as important lessons to take forward to future events.

Being Prepared for Business workshops

1. Thirty-three participants took part in one or more of the Being Prepared for Business workshops.
2. The response rate to the end of programme survey was low, however of those that responded, five out of the six respondents considered that the workshop met the aim to develop skills for pitching and presenting.
3. To best suit the circumstances created by Covid-19 and feedback from participants, the Being Prepared for Business activity changed to four stand-alone workshops, rather than being linked. The advantage of remote delivery was that workshop 3&4 were able to be more personalised to the needs of participants. However, it was felt that it was a shame that the ability to build on learning between workshop 1 and 2, had not been possible because of the delay of eight months between the two workshops.
4. After reflecting on comments from participants, the decision had been made to provide much more support to participants around communication and working with industry. The Being Prepared for Business activity had originally been designed with the expectation of honing participants skills, however, the delay to delivery created by Covid-19, enabled the organisers to redevelop the content based on feedback from participants, to focus on development of basic skills to support communicating with industry professionals.

General findings on the University-Industry Collaboration activities

5. In general, the activity team found that EDI knowledge tended to be missing in academic trainers, and experts in EDI that were brought in to deliver sessions tended to be more engaged with the ideals of the project than those who were experts in their field of training. The developers reflected that they had gone to the trainers to ask them to provide a specific product or session, rather than explaining what the activity was trying to achieve; this was something that would be adjusted in the future.
6. It appeared to be the case that participants considered that taking part in a workshop would lead to change, without any further commitment. However, the developers were keen to emphasise that the events provided the opportunity for development conversations but were not on their own going to fix problems. Engagement within and beyond the activity was necessary for change to happen.
7. There was a sense that participants expected a checklist of solutions to be provided by the activities. However, attendance at the events should be considered to be only one part of the professional development process, and that participants need to commit to understanding the importance of continued development beyond an event.

The University-Industry Collaboration (UIC) activity offered a series of events, workshops and online content aimed at equipping academic participants with the skills and knowledge to be confident in approaching collaborations with industry and businesses. The intention was to create strong research connections between industry and ECRs.

The UIC activity was split into two components: a one-day EDI in Engineering and Physical Sciences event; and a series of four interconnected Being Prepared for Business workshops. The findings of the evaluation are presented for these two areas separately before considering the overarching UIC activity as a whole.

Equality, Diversity and Inclusivity in Engineering and Physical Sciences (EDI in EPS) event

Description of the EDI in EPS event

The EDI in EPS workshop was held in-person on 12 December 2019. The session was a whole day event, starting at 9.30am and ending at 5.30pm. The number of participants and presenters varied throughout the day. Twelve people took part in the panel discussion over the course of the day. A welcome area outside the main presentation room was available as a space for discussions before the event, at breaks, lunch and at the networking event after the workshop.

Towards meeting the aim of providing the "opportunity to come together and explore EDI matters", the participants commented on the day that they appreciated the ability to talk to those from other organisations about these topics and to find out what was being done in other organisations. Conversation took place through guided discussions on tables as part of presentation sessions, in breaks, lunch and in the networking time after the event. Discussion in short periods was included as part of the presentations (e.g. 5 mins) with feedback then given by tables to the whole room, this sometimes prompted full room discussion. A networking session was active for approximately 1 hour after the workshop with numbers gradually decreasing during this period. All participants at the event took part in discussions and generally there was a good willingness by the room to be open with their responses.

Personal stories were shared throughout the day by presenters, including on understanding and making change to EDI practice within HE and on Ableism in HE delivered by a current ECR from one of the HEIs within the programme. Sessions were also presented on Imposter Syndrome, Privilege and Active Bystander training.

To address the aim to support participants in "developing awareness of EDI relevant to their discipline", there were many examples shared during the day of ways of making change to EDI practice in HE and Industry. Participants commented how useful many of these examples were for them in their own organisations.

The sessions raised areas to be considered within EDI (e.g. communication techniques, image and visibility, language, access). Some of the presentations gave examples of the impact that these have on the perceptions of individuals or groups whilst other presentations focussed on ways to tackle issues e.g. diversity of authors on reading lists, diversity of seminar speakers)

In terms of gaining knowledge and skills in relation to EDI, information was presented and discussed about the impact that practices can have on individuals/groups and the range of EDI practices across different organisations was discussed. The sessions gave participants the opportunity to hear practical ways of making change within EDI in HE and industry.

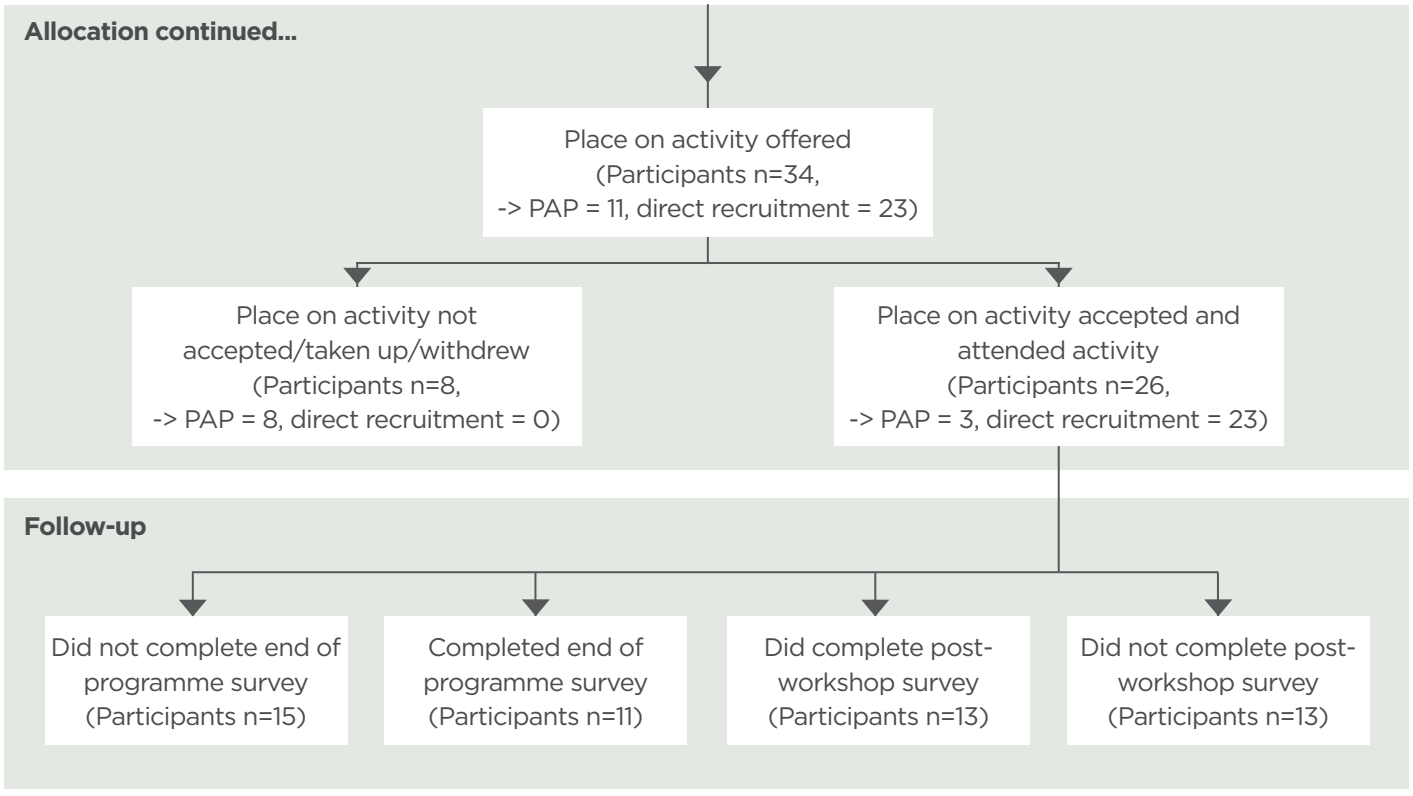
There were many introductions made between individuals through discussions at breaks, lunch and the networking event to support participants to "develop collaborative links".

Access to the Online Platform was not available at the time that the event ran due to the platform as the data sharing agreement was still awaiting signatures by the HEIs running activities. However, a summary of the workshop content, presentations from the workshop, additional presentations, support materials, useful resources, links to interesting articles and a discussion forum were made available on the Online Platform for use by participants after the event.

Participant flow chart

Participants were able to sign up to the event through two methods: the baseline registration form (from which they were offered a place at the event through the Participation allocation Panel - PAP); or by directly signing up to the event through an electronic registration form. The participant flow diagram for the EDI in EPS event is shown in Figure 11 below.

Figure 11. *Participant flow for the EDI in EPS event. Note that the first stage of the allocation process is described in the Participants section at the beginning of the Results section.*



EDI in EPS applicants and participants

Full demographic information is available for participants who registered through the baseline registration form. However, participants who signed up directly to the event only completed a short form which did not include information about their background, other than their name and organisation.

In addition, attendees at the event were also asked to complete a short survey three weeks after the event. This included questions about their background as well as their views and actions following the event. Thirteen out of the 26 participants completed the post-event survey.

Due to the information collected in the different sign up processes, and 50% completion rate on the post-event survey, there are 11 participants for whom demographic information is not available.

Participants

In total, 26 participants attended the event (18 HEI, 8 Industry) from 12 different organisations (7 HEIs and 4 industries).

The department is not known for the majority of attendees (N=17), however, of the nine who did report a department, eight different departments were stated. Similarly, discipline is not known for the majority of attendees (N=18), however, of the eight who did state their discipline, each reported a different area. Six out of the 26 attendees reported being in the early career stage, seven in the established career stage and two reporting “other” for career stage. Career stage is not known for 11 attendees.

The eight staff that signed up to the event but did not attend were from HEIs which were represented at the event by other colleagues. These eight participants were evenly split between early and established career.

Under-represented characteristics

Attendees at the event were asked which of the under-represented characteristics highlighted by the project they identified with (Table 46 and Table 47). Participants were able to select more than one characteristic. To preserve the anonymity of participants, where there were fewer than five (but greater than zero) participants indicating that they identified with a particular characteristic, this has been reported as <5. Of the attendees that provided information, seven identified with a single under-represented characteristic and two with more than one characteristic. Due to the different sign up processes, characteristics are not known for the majority of participants.

***Table 46**. Under-represented characteristics participants identified with. Participants could identify with more than one characteristic (The total number of participants = 33). Where there were more than zero but fewer than five participants reporting a characteristic, this is reported as <5, to preserve anonymity.*

	Did not attend (n)	Attended (n)
Black, Asian and minority ethnic (BAME)	<5	<5
Disabled	<5	0
LGBT+	<5	<5
Woman	5	7
Other	0	<5
None of the above	<5	<5
Unknown	0	13

***Table 47**. Number of under-represented characteristics that participants identified with (n = 33).*

No. of under-represented characteristics participants identified with	Did not attend (n)	Attended the event (n)
1	6	7
2	1	2
4	1	0
None of the listed characteristics	1	4
Unknown	0	13

The findings from the post-event survey relating to the perceived impact for participants of the EDI in EPS workshop are presented below. Responses to the post-workshop survey were received from 13 of the 26 participants.

Perceived impact of the EDI in EPS event

Table 48 shows the perceived impact of the EDI in EPS event for participants. The majority of respondents to the survey agreed that the workshop had fulfilled seven of the aims, with the aim for "the workshop providing the opportunity to come together and explore Equality, Diversity and Inclusion (EDI) matters" and "the workshop exploring why EDI matters in Higher Education (HE) and Industry" having the most respondents strongly agree to these statement (nine and seven out of 13 responses, respectively). The response was more mixed as to whether "the workshop had helped them to develop collaborative links".

One participant strongly disagreed that the workshop had met the aims stated in the survey. However, there was no indication within their open text responses as to the reasons why they felt this was the case and their responses indicated that they had already acted to change practice following the workshop and would be encouraging colleagues to participate in similar training.

***Table 48**. Extent to which respondents agreed with the stated aims of the workshop (number of respondents = 13)*

Question/stated aim	Strongly disagree (N)	Disagree (N)	Neither agree nor disagree (N)	Agree (N)	Strongly agree (N)
1. The workshop provided the opportunity to come together and explore Equality, Diversity and Inclusion (EDI) matters	1	0	0	3	9
2. The workshop explored why EDI matters in Higher Education (HE) and Industry	1	0	0	5	7
3. The workshop enabled you to develop awareness of EDI relevant to your discipline	1	0	2	4	6
4. The workshop built your knowledge and skills in relation to EDI relevant to your discipline	1	0	1	5	6
5. The workshop helped you to develop collaborative links	1	1	4	5	2
6. The workshop helped you to understand work practices in other organisations	1	0	1	7	4
7. The workshop helped you to understand work policies in other organisations	1	0	1	6	5
8. The workshop enabled the sharing of practice/policies/ initiatives	1	0	0	8	4

One respondent to the end of programme survey had accessed the materials on the Online Platform two to three times after the event. No other respondents reported that they had accessed the materials on the Online Platform. Access logs for the Online Platform showed that the materials in the EDI in EPS area of the Online Platform had been accessed three times over the course of the programme. As the Online Platform was not available at the time that the event ran, it is not unexpected that the materials in the area were not accessed much during the programme, as the participants did not have a need to access the materials as part of the activity.

Knowledge and skills gain

Examples of knowledge which respondents felt that they gained from attending the workshop included: a better understanding of women's equality issues; ableism within the academic environment; a better understanding of how industry and other academic institutions were tackling issues; examples of good practice; a better understanding of what is required for a culture change relating to activity bystander training; that many approaches try "fixing the individual" but that the system needs changing; the impact that disability discrimination can have on individuals; how reasonable adjustments can be better made to support disabled staff and students; privilege; imposter syndrome; the effect of inequality; getting a better understanding of who to talk to for developing EDI knowledge; gender decoder software; the need to be more self-aware.

Examples of skills that respondents felt they had gained included: a better ability to discuss equality issues; inclusion skills; an all-round improved understanding; actions that they could take as an active bystander.

These align with the aims of the event and the sessions that were delivered within it.

Actions and change

Participants were asked what actions they had taken away from the event (if any). Respondents gave examples of: ideas for new events; altering presentations due to having gained a greater understanding of disability; raising issues around female equality in their own department; reviewing key learning from the event with their teams at work; cascading information to their local leadership team; new connections and conversations; embedding EDI within a cycle of constant review rather than only as part of the Athena Swan application; using gender neutral examples in classes and ensuring learning materials are gender neutral; facilitating a more inclusive learning environment and calling out incidents; finding out more about EDI issues and broadening their understanding of EDI; meeting with senior leadership to discuss EDI and finding senior role models; being more aware of privilege. One participant had already run a version of one of the workshop activities with their colleagues.

When asked whether they had already changed (three weeks after the workshop)/whether they intended to change their own practice relating to EDI after attending the workshop, eight out of the 13 respondents said yes and five reported no.

Example of changes included: new presentation designs; new workshops; picking up elements of best practice highlighted at the workshop; being an active bystander; introducing continual review of EDI performance; being more mindful in wording communications; checking for gendered wording in job adverts; gender balanced candidates for interviews; considering situations from different viewpoints.

Areas where respondents perceived barriers to being able to change their own practice following the workshop included: the size of a university as an organisation, making change challenging; confrontation; organisational and awareness barriers; that addressing the imbalance in the male to female ratios on courses needs to be achieved through changes to the recruitment process; their own ignorance of EDI issues.

The majority of respondents (seven out of 12 responses to the question) reported that they had not already changed/did not intend to change practice within their organisation relating to EDI after attending the workshop. However, where respondents had made changes/intended to make changes (five out of 12 responses to the question), examples included: engaging with student groups; discussing new approaches to mental wellbeing; workshop ideas for academic staff; raising awareness and increasing visibility of issues; being more inclusive; finding out more about EDI and the resources and expertise available to help; and encouraging colleagues to attend EDI related events.

Respondents were asked whether they perceived any barriers to being able to change their organisation's practice. Several examples were given, these included: resistance to change; reluctance to change within the organisation due to "old fashioned views at higher management level"; "lip-service" informing policy within the organisation; large organisations being hard to change; the scale of the changes required; and the position of the respondents not being one which had influence. However, several respondents commented that they did not consider there were barriers with one stating that *"I think my organisation is quite encouraging with addressing equality and diversity, and welcome[s] initiatives to this end."*

Participant engagement

After the first session, conversation started and there was active discussion at tables followed by feedback to the room and questions asked by the audience. Participants commented throughout the day how interesting the event had been and how much they had appreciated hearing from others.

Differentiation

Respondents were asked how this event differed to other EDI events they had attended. Examples of where respondents considered it differed to other EDI events included: the range of talks, participants and perspectives at the event *"I have been to similar events but the format worked well here with a wide range of participants with different ideas"*; the use of examples/case studies to show challenges that had been faced and solutions that had been used to overcome them, *"...[it was different because] rather than being only theory, real-world, first-hand experience, case studies were presented from various sectors and organisation"*; the interactive, open, conversational, informal nature of the session. *"The panel, room, size of audience was small, which enabled a positive, intimate conversational setting"*; and the positive attitude of attendees and "very open ethos, no one thought that EDI was box-ticking". Five out of the 13 respondents commented that this was the only EDI event they had attended, or that they had not attended many EDI events so could not judge how it differed to other EDI events.

Participants were asked whether there was anything about this event which stood out for them as being more effective than other EDI events they had attended. The contribution from speakers and attendees from both academia and industry was considered to be particularly effective. The quality and approachability of the speakers and the topics having personal meaning to some of the speakers was felt to have made the event stand out. In addition, the casual layout and willingness from all participants to contribute to the discussion was also felt to have made it more effective than other EDI events.

Barriers to participation and accessing the event

In an effort to reduce barriers to participation, the presenters considered accessibility in planning the event. In particular, reminders were given throughout the day that the microphone should be used by speakers to aid those with difficulty hearing, slides were shared after the event, and consideration had been made to access for those with physical mobility issues.

In the post-event survey, two out of the 13 respondents to the survey indicated they had encountered difficulties accessing or engaging with the event. In their open text response, one participant commented that the difficulty had been that they could only stay for part of the session with the other commenting that their difficulty had related to the sometimes disruptive behaviour of another participant. The participant commented that they would appreciate support from the session chair to challenge the behaviour in the future.

Adaptions and future implementation

Observation of the event did not highlight any significant changes to the planned delivery, other than a change of timings to include a break within the morning schedule.

Respondents to the survey were asked if there were any changes they would suggest in order to make the workshop more effective in the future. A wider range of topics was requested as one respondent felt that although the topics that had been covered had been delivered in depth, this had been at the expense of breadth. Requests also included: providing more time for Q&A panel sessions; the inclusion of government officials, legislators and regulators at the event; the inclusion of more practical examples of how EDI policy/strategy had changed a system; and examples of benefits for organisations from applying EDI policies. One respondent cautioned that events need to find a balance, so as not to give the *"impression of superiority that the preachers of EDI exhibit. Communication is critical and pious sanctimony does not help."*

Being Prepared for Business (BPB)

Description of the BPB activity

The BPB activity consisted of four workshops. Observation of the first two workshops were carried out by the evaluation team. As the final two workshops were online one-to-one or one-to-two sessions, these were not observed, so as not to impact on the participants' interaction in the session.

Workshop 1

Workshop 1 was held in-person (prior to Covid-19 restrictions) on 13 February 2020. The whole day workshop had five speakers and two organisers present, with the day starting at 10am and concluding at 4pm.

As workshop 1 was the first of three planned workshops, it did not attempt to cover all areas within the aim of the BPB activity. The workshop was designed to cover personal brand. Content of the session included: "tackling nerves" and "techniques for pitching ideas and yourself effectively (in general)". The day was built around giving participants information on how others had built their personal brand and how personal brands can be perceived and received. Participants did not get a chance to apply this to their own context within the workshop, but they did receive perspectives on how all five speakers considered personal brand. The final speaker at the workshop adapted their content based on the topics which the audience reported that they found most challenging when giving presentations.

Participants had a chance to speak with one another and with the presenters at breaks and lunch and after the event as an opportunity to develop networks with academic and industry. The ongoing offer of support was given by two of the speakers.

The skills covered during the workshop were not explicitly framed for participants in the context of carrying out collaborative research projects, however, an aim from the organisers was that the information and advice received in these sessions could support this objective. Exploration of real industrial challenges, exploration of how skills can support industry, and the opportunity to share research ideas were not covered within the workshop.

Participation during the workshop was minimal until the final session. Observation of the session indicated that this may have been due to there being limited opportunity for participants to warm up to responding to questions in the earlier talks. Much of the day was presentation of information rather than an opportunity to discuss. The final speaker strongly encouraged audience participation and by the end of the session the majority of participants were joining in.

Online Platform

A summary of the workshop 1 content, presentations from the workshop, additional presentations, support materials, links to interesting articles and a discussion forum were available on the Online Platform for use by participants after the event. However, as the Online Platform was not yet live for access by participants at the time of the workshop, these were not available to share on the day of the event.

Workshop 2

The delivery of the second workshop was delayed due to the Covid-19 pandemic and was held on 27 October 2020 as a webinar on Blackboard. The session was one hour long from 3 – 4pm. There was one speaker at the workshop along with two organisers and two IT support staff.

The workshop was the second of three planned events for the Being Prepared for Business activity. The second in-person workshop moved to being a shortened online presentation of up to 2 hours, as opposed to an in-person half-day or full-day workshop.

The webinar was advertised as "The Academic / Business Relationship: How academics can engage with businesses, and the value of these relationships". The presentation covered making links with industry, finding an industry whose work fit with your research, doing research about a company before making contact, and the positives that can come from collaboration. The presentation was based around the speaker's own experience of moving between industry and academia.

Alignment to the aim of "skills for carrying out collaborative research" was mostly covered through advice on making contact with industry. The presenter shared their history of working with industry in approaching the aim of "exploration of real industrial challenges".

Online Platform

No materials from the second workshop were available to the Online Platform, however, the slides from the workshop were circulated to participants by email after the event.

Workshops 3&4

Workshops 3&4 were two 90 minute sessions, with two participants present at a time with one facilitator. The workshops were held across the duration of November 2020. The two workshops are discussed and analysed as a single entity within the report as the workshops ran as a pair of sessions, with the same participants attending the two workshop sessions.

The workshops focussed on "Preparing for Collaboration: Personal Communications Training". The aim of the workshops were to offer participants a bespoke training experience to support them in developing communication skills to prepare them for engaging in collaborative activities with industry and with other academics. The training aimed to develop the confidence of participants in effectively talking about their skills and showcasing their 'personal brand' in a way that highlights what they can offer to a collaborative activity.

The workshops had been developed following feedback during the programme from industrial partners who indicated that they felt that academics could be better at selling themselves and making clear the ways in which their skills can translate into a business environment. In addition, project participants identified that they were are often only offered training in promoting their work to other academics or non-technical audiences and not to potential industry collaborators.

Therefore, following on from this feedback the workshops were developed in collaboration with an external trainer to develop an opportunity for participants to become confident in talking to potential collaborators. The virtual workshop sessions took place in very small

groups (2-3 participants to one trainer) to ensure they were tailored to participants' needs. The first of the two sessions attended by participants included working through strategies and techniques with the trainer before receiving further individual feedback to refine the way in which they communicate about their skills to experts who may not be in their 'niche' discipline area.

Online Platform

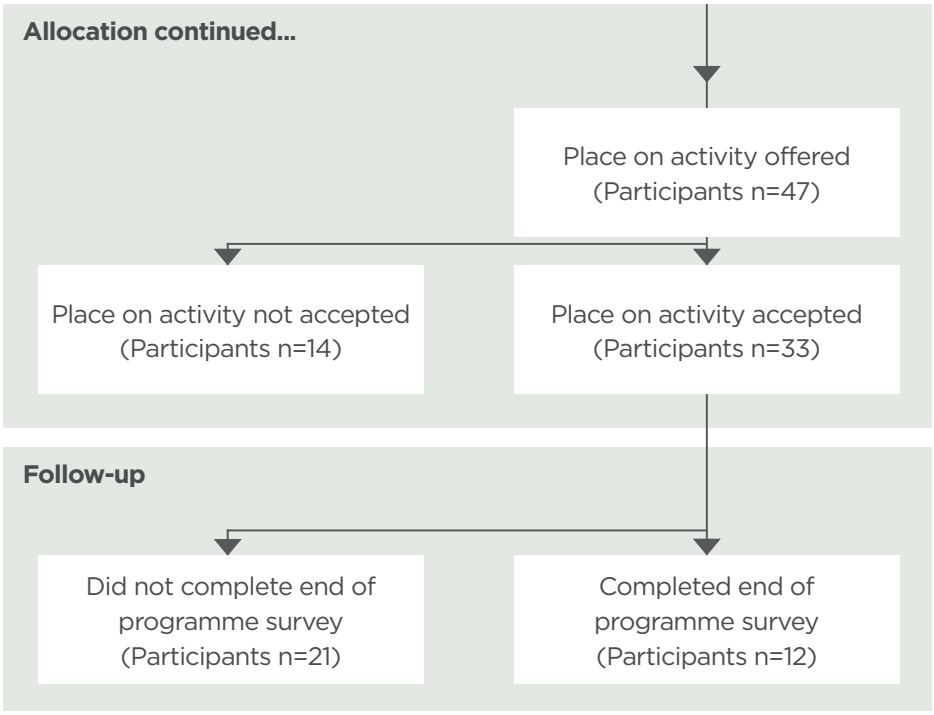
No materials from the third and fourth workshops were included on the Online Platform.

Being Prepared for Business applicants and attendees

Participants were able to sign up to the four Being Prepared for Business workshops through two methods: the baseline registration form (from which they were offered a place at the event through the Participation Allocation Panel - PAP); or by directly signing up to the event through completion of an online registration form (workshop 1 and 2 only).

The participant flow for the Being Prepared for Business activity is shown in Figure 12 below. Forty-seven people were offered placed on the activity with 33 participants attending across the four workshops.

***Figure 12**. Participant flow for the Being Prepared for Business activity. Note that the first stage of the allocation process is described in the Participants section at the beginning of the Results section.*



Full demographic information is available for participants who registered through the baseline registration form. However, participants who signed up directly to workshop 1 or 2 only completed a short form which did not include information about their background, other than their name and organisation. Demographic information is therefore known about five out of 12 participants at workshop 1, 10 out of 14 participants at workshop 2 and all participants at workshop 3&4.

Participants

In total, 12 participants attended workshop 1 (from six different HEIs and one unknown organisation), 14 participants attended workshop 2 (from five different HEIs) and 18 participants attended workshops 3&4 (from five different HEIs).

For workshop 1, five out of the 12 participants provided information on their career stage and all of these were Early Career Participants (ECPs). At workshop 2, 10 out of the 14 participants provided information and again all were ECPs. For workshops 3&4, all 18 participants provided information, with 16 reporting being in the ECPs and two in the established career stage.

Twenty-three participants from 6 different HEIs signed up to workshop 1 and were offered a place but did not attend. Of these, 17 were ECPs, two established career and there was no information for four participants. For workshop 2, 15 of the 17 participants who did not attend were ECPs and two were established career (from five HEIs). For workshops 3&4, 11 of the 13 that did not attend were ECPs and two were established career (from five HEIs).

Under-represented characteristics

Participants were asked which of the under-represented characteristics highlighted by the project they identified with (Table 49, Table 50 and Table 51). Participants were able to select more than one characteristic. To preserve the anonymity of participants, where there were greater than zero but fewer than five participants indicating that they identified with a particular characteristic, this has been reported as <5.

***Table 49**. Workshop 1: Under-represented characteristics participants identified with. Participants could identify with more than one characteristic. Where there were more than zero but fewer than five participants reporting a characteristic, this is reported as <5, to preserve anonymity. (The total number of participants = 12).*

	Did not attend (n)	Attended (n)
Black, Asian and minority ethnic (BAME)	13	<5
Disabled	<5	0
LGBT+	<5	0
Woman	11	<5
Other	<5	0
None of the above	<5	<5
Unknown	<5	7

***Table 50**. Workshop 2: Under-represented characteristics participants identified with. Participants could identify with more than one characteristic. Where there were more than zero but fewer than five participants reporting a characteristic, this is reported as <5, to preserve anonymity. (The total number of participants = 14).*

	Did not attend (n)	Attended (n)
Black, Asian and minority ethnic (BAME)	10	7
Disabled	<5	0
LGBT+	<5	<5
Woman	9	7
Other	<5	<5
None of the above	<5	0
Unknown	0	0

***Table 51**. Workshops 3&4: Under-represented characteristics participants identified with. Participants could identify with more than one characteristic. Where there were more than zero but fewer than five participants reporting a characteristic, this is reported as <5, to preserve anonymity. (The total number of participants = 18).*

	Did not attend (n)	Attended (n)
Black, Asian and minority ethnic (BAME)	7	9
Disabled	<5	<5
LGBT+	<5	<5
Woman	7	11
Other	<5	<5
None of the above	<5	<5
Unknown	0	0

Number of workshops attended

Participants were able to select which workshops they were interested in attending. Although originally it was anticipated that participants would sign up to be part of all four, this was not compulsory. Table 52 and Table 53 shows the number of activities that participants attended.

***Table 52**. Number of workshops the participants at each workshop attended (The total number of participants = 33).*

	Number of BPB workshops attended		
	1	2	3
Took part in WP5 BPB Workshop 1	9	2	1
Took part in WP5 BPB Workshop 2	5	8	1
Took part in WP5 BPB Workshops 3&4	9	8	1

***Table 53**. Cross over between workshops for participants that attended more than one workshop (n=10).*

	No. participants
Took part in Workshops 1 and 2	2
Took part in Workshops 1 and 3&4	2
Took part in Workshops 2 and 3&4	8
Took part in Workshops 1, 2 and 3&4	1

The original design for the evaluation intended to have a specific post-activity survey, to explore participants' opinions and experiences in detail. However, due to Covid-19 leading to the workshops being re-designed and the final workshop not being held until November 2020, it was not feasible to ask participants to complete a post-workshop survey followed by the main end of programme survey only one month later. Therefore, the evaluation of the Being Prepared for Business activity comprised observation of workshops 1 and 2, the developer interview and the inclusion of a reduced a set of questions in the end of programme survey.

Perceived impact of the Being Prepared for Business activity for participants

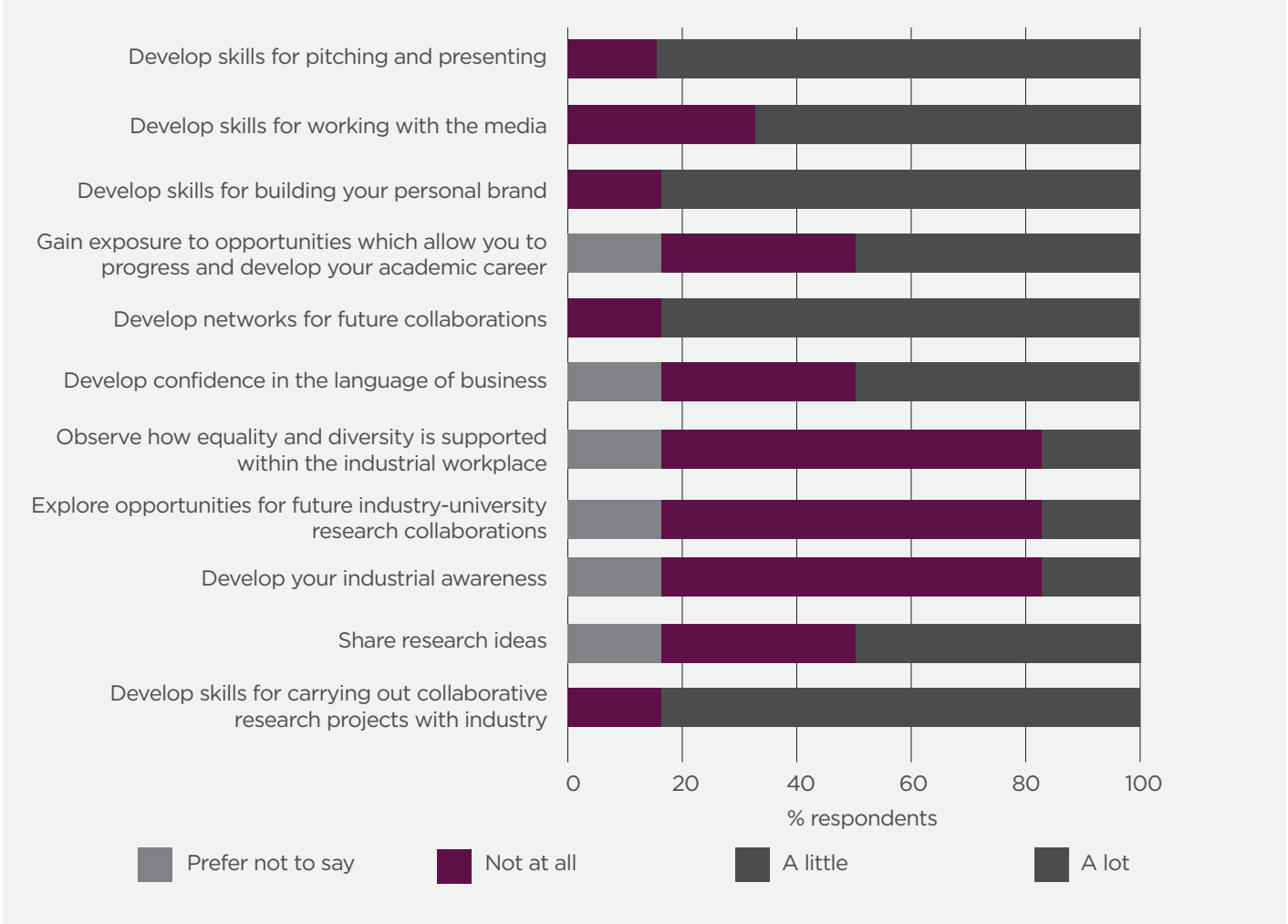
Respondents to the BPB end of programme survey questions

The findings from the end of programme survey relating to the Being Prepared for Business Workshops are presented below. Six respondents from the 33 that participated in one or more of the BPB workshops responded to the survey. Due to the small number of responses, findings are presented as a single figure representing all four workshops. Responses to the survey have only been included in the analysis for those that attended one or more of the workshops. Within the respondents to the survey, all had participated in workshop 3&4, three in workshop 2 and two in workshop 1.

Meeting the aims of the activity

Participants were asked to reflect on whether they felt the workshops met the stated aims of the Being Prepared for Business activity. Five out of six feeling that it met the aim a lot to "develop skills for pitching and presenting" and three out of the six respondents felt that it had met the aims a lot to "develop skills for building your personal brand" and "develop skills for working with the media". There was a mixed response as to how well the workshops met the other aims (Figure 13).

***Figure 13**. Extent to which respondents to the end of programme survey felt that the workshops met the stated aim of the Being Prepared for Business activity (n=6).*



Respondents to the survey commented that they had found it to be a *"nice, well executed programme"* and that *"the training was really useful, maybe intense but I enjoyed it"*. One participant commented that they hoped more content would have been covered about how to build a connection with industry and that although the "elevator pitch" presentation skills had been useful, they had hoped more content would be covered.

None of the six respondents to the survey reported having used any resources on the Online Platform for the Being Prepared for Business activity. Analysis of the access logs for the platform showed that the materials in the Being Prepared for Business area of the Online Platform had been accessed five times over the course of the programme.

Challenges and barriers for accessing the BPB activity

Informal feedback from several participants on the day of workshop 1 to the organisers was that the participants had valued the advice and perspective of a particular presenter on how the current Higher Education system operates. However, one participant left the workshop early as they had been upset by the views expressed by the presenter and that they had not shown understanding of the difficult circumstances for some junior researchers. The organisers were in contact with the participant after the workshop to see if there was anything they could do to assist. Later in the workshop, the organisers had discussed the balance between working within the current system, whilst also trying to change it. The developers noted in end of programme discussion that power dynamics within training sessions is an important point to consider and that it vital not to make assumptions that all participants have the same needs or are facing the same challenges.

The main challenge in the implementation of workshop 2 was participants appearing reluctant to interact due to the webinar format. Participants were set to mute at beginning of the workshop and were encouraged to use the chat function for questions arising during the presentation. Although participants were asked to raise any questions that they wished the presenter to answer, none were put forward by participants. The activity developer had several pre-prepared questions that were therefore asked at the end of the session. Due to the online webinar format, there was also little opportunity for participants to network. In the end of programme interview, the developers reflected that muting participants was an error and had probably lead to reduced participation. In future, they would ensure that participants had the opportunity to communicate via a range of methods.

Adaptions and future implementation

To best suit the circumstances created by Covid-19 and feedback from participants, the BPB activity changed to be a series of stand-alone workshops, rather than being linked.

The Being Prepared for Business activity team reflected after workshop 1 that the introduction to the day should have included an overview of where the workshop fit into the overall BPB structure and what the later workshops would be on (this was included in closing remarks but not within the introduction to the session). There were no adaptions to the delivery of workshop 2 during the course of the event, however, the overall delivery of the day had been changed from the originally planned in-person workshop.

Workshops 3&4 became a lot more personalised in response to the activity being delivered remotely. After reflecting on comments from participants, the decision had been made to provide much more support to participants around communication and working with industry. Originally the BPB activity had been designed with the expectation of honing participants' skills, however, it became clear to the developers that the foundation was not in place and that it would be beneficial to start from the basics.

Interaction with industry partners had to change due to the impact of Covid-19, Brexit and online delivery. Due to this, the number of industry partners participating had decreased over the course of the project.

University-Industry Collaboration (all activities)

The University-Industry Collaboration activity developers were in the most part satisfied with how the activities had been implemented throughout the programme, especially considering the restrictions placed on the activity due to Covid-19 restrictions. However, they were disappointed not to have been able to offer all the planned activities, with the Work Shadowing activity unfortunately having to be cancelled.

The developers were pleased that they had been able to adapt delivery and still offer something of value to participants. They felt this had been evidenced by all participants in the final BPB workshop turning up for the last session and being able to take part, with participants jumping at chances to attend second sessions where they were offered.

The developers considered that the first two in-person events (EDI in EPS and BPB workshop 1) had gone well. However, they felt it was a shame that the second BPB workshop had not been able to run close to the first as there was learning for participants that could have been developed, but this had not been possible. The EDI in EPS had worked well for engaging with the industrial partners and had given them a sense of buy-in and the developers felt that moving the remaining two BPB workshops online had worked better than they had expected.

The team reflected on whether they felt the aims stated in the information sheets for the activities had been met. They reflected that they did not feel they had been able to move the knowledge of EDI on as far as had been hoped and that it had highlighted a lack of awareness of EDI for participants. Collaboration outside the workshops had not happened as hoped as the connected follow-on events for BPB had not been able to happen. Sharing research ideas and developing industry awareness within the BPB activities had not been able to happen as hoped when the activity went to being delivered virtually.

The data sharing agreement and Online Platform not being in place when the EDI in EPS workshop took place meant that they had not been able to make as much use of the Online Platform as had originally been intended. Participants had also not engaged as much as had been hoped with the materials that had been put on the platform form subsequent events.

Unfortunately, the Work Shadowing activity had to be postponed before eventually having to be cancelled. An interesting observation during early conversations with industry partners was in respect to the research areas in which industry partners had been keen to engage. Big Data had emerged as an area that all potential industry partners seemed interested in working with academics on. There had been less of a breadth of fields of interest than had been expected for different disciplines for Work Shadowing opportunities. Conversations by the activity development team with the potential participants had shown that there was an appetite for this activity and it was anticipated that that this would have gone well had it been able to take place.

Engagement

The University-Industry Collaboration activity developers were asked what they had been looking for in successful delivery of the EDI in EPS event and BPB workshops. Their main expectation had been commitment from those engaged. However, they had found that there had been a varying degree of capacity or interest to engage.

Participant engagement - The developers had originally expected that participants would commit to the whole programme, but feedback had been that they didn't want to commit time, were worried about exposing themselves, or that they did not recognise the benefit of engaging with industry.

Industry engagement - In terms of the industry partners, of those that had engaged, their participation had been extremely good. However, it had been more difficult to maintain contact with some partners. The developers postulated that clearer discussion and communication of plans with industry partners from an activity level at the bidding stage of the project may have reduced uncertainty around expectations during implementation. Once communication was established, the conversation usually went well with the partners.

Prerequisites

The developers felt that some of the trainers struggled with the idea that there were participants from multiple universities attending a single event. They reflected that in the future they would explain the purpose of the collaborative nature of the programme more, and aim to make more of it in the sessions. They also reflected that they had gone to the trainers to ask they to provide X, rather than explaining what the activity was trying to achieve. They would change this in the future.

Within the different trainers at the events they had some who were experts in their field of training and others that were experts in EDI. The latter group were more engaged with the project ideals. The activity developers found that in general, EDI knowledge was missing in academic trainers. They reflected that consideration of the audience is important and that trainers need to not be pushing their own agenda and must be considering what is important for the people in the room. The participants did not want an activist presenting and it was essential not to be perpetuating an oppressive attitude.

The developers considered that from a participant's perspective, they needed to understand that taking part will not lead to change, without them engaging. There is a need for commitment and an understanding that the events provide development conversations and will not fix everything. There was also a sense that participants were expecting a checklist of solutions and that was not what was being provided by the activities. Attending the events is only one part of their professional development and that they need to commit to understanding that it is essential to continue the development beyond the event.

Future implementation

Reflecting on the participants attending the event, the developers felt that it was unlikely that outside of a research project, that another university would be willing to pay for staff from a different university to attend their events. The developers wondered if this could be a benefit of remote delivery as there is a potential to scale up with fewer costs. In addition, they wondered if remote delivery might make it easier for participants to take part as it would be less visible that they were participating and they wouldn't have to be as accountable for their time.

If the activity was to be run again, the developers suggested that it may be beneficial to work with groups that already exist within the partner HEIs, and to work within those groups with individuals to support them in engaging with industry.

The developers were keen to implement the Work Shadowing activity and to see how this can facilitate close links in the future.

Overall programme differentiation for participants and challenges for participation

Key findings:

1. Across multiple activities on the programme, the cross-institution, cross-discipline and cross-career stage aspect of the programme was highlighted by participants as being different from other professional development opportunities, particularly for mentoring activities.
2. Responses from the developers of the Northern Power Inclusion Matters programme also indicated that the cross-institutional nature of the programme across multiple activities, was what differentiated the programme from other initiatives. Although individual activities were already available at single HEIs, the ability to provide them cross-institutionally with multiple HEIs and industry partners was seen as being distinctive and beneficial for the intended participants.
3. Participants suggested a variety of reasons why they considered the cross-institution aspect of the programme to be beneficial. These included that it: gave the opportunity to see how things were done in other organisations, brought new ideas, provided external and/or different perspectives, gave the participants the opportunity to receive impartial advice and feedback, revealed to participants that issues are similar across different institutions, gave the opportunity to see how things were done in other organisations, provided an opportunity to extend networks, and provided the opportunity for participants to get to know cultures of different institutions.
4. Participants commented on the benefits of having the opportunity to speak with someone from a similar background to themselves that had faced similar challenges, and feeling like the activities they were involved in celebrated their protected characteristic rather than being isolated.
5. Participants described barriers or challenges they had encountered to being able to participate in activities in the Inclusion Matters programme. Time was the most frequently cited barrier; either because of workload or because of Covid-19. The postponement or change in activities due to Covid-19 had affected some participants.
6. Time and Covid-19 (especially relating to home working, limited social interaction and recruitment freezes) were the main challenges described by participants in being able to action the advice they had received during the programme.

Programme differentiation

Participants completing the end of programme survey were asked "Please briefly describe any features of the Inclusion Matters programme that were different to professional development opportunities you have participated in before and whether you felt this made the Inclusion Matters offer more or less beneficial to you?"

Several themes emerged including: the focus on EDI, opportunity to interact with a different group of people that they would not ordinarily come into contact with, and the cross-institutional, cross-discipline and cross-career stage nature of the programme. The theme of the focus on EDI differentiating the activity from other similar events is discussed in detail above in the EDI in EPS event results section.

Across multiple activities on the programme, the cross-institution, cross-discipline and cross-career stage aspect of the programme was highlighted as being different from other professional development opportunities, particularly for mentoring activities.

Cross-institution delivery

Participants suggested a variety of reasons why they considered the cross-institution aspect of the programme to be beneficial as it:

- gave the opportunity to *"see how things were done differently elsewhere"*.
- *"brought new ideas"*.
- provided *"external perspectives"* and *"different perspectives"*.
- gave *"security of impartiality"*, participants felt they received *"more impartial feedback"*.
- was *"good to hear issues are not institution-specific"* and that *"issues are cross-institutional"*.
- was *"interesting to hear how other institutions have tackled some things differently"*.
- enabled participants to gain an understanding of whether issues were local or where things were different elsewhere.
- provided an opportunity to extend networks and to *"meet people outside [your] own institution but who were also local"*.
- *"was an excellent opportunity to discuss and enrich the sessions"* through the *"sharing [of] experience in different institut[ions]"*.
- provided the opportunity to get *"to know cultures of different institutions"*.

However, participants did note some challenges with cross-institution activities, where:

- some advice was not directly relevant to staff at all institutions.
- sometimes assumptions were made that challenges were limited to particular institutions and were not present in others.

In cases where participants had been in cross-institutional activities but had colleagues from their own department present, participants commented that this had made discussions more difficult.

Responses from the developers of the Northern Power Inclusion Matters programme also indicated that the cross-institutional nature of the programme across multiple activities was what they considered differentiated the programme from other initiatives. Although individual activities were already available at single HEIs, the ability to provide them cross-institutionally with multiple HEIs and industry partners was seen as being distinctive and beneficial for the intended participants.

Shared characteristics and experiences

Participants commented on the benefits of having the opportunity to speak with someone from a similar background to themselves that had faced similar challenges, and feeling like the activities they were involved in celebrated their protected characteristic rather than being isolated.

"Being able to celebrate a protected characteristic throughout the process rather than feeling isolated because of it. … Speaking with more senior colleagues about shared wishes for increasing visibility of protected characteristics and barriers often found, and potential solutions, within academia was really useful."

"The Inclusion Matters program enabled me to have a mentor who is from under-represented groups like me. We have many [things] in common including culture, education and family background, which made the mentorship more sincere than other programmes I have participated in."

"This programme was an excellent opportunity for me to discuss issues my mentee has had, whose background was similar to mine, and possibly suggest a good way to deal with them and share experience. This opportunity was thus distinguishable from the other career development opportunities which are fairly easy to find and have a rather broad focus."

"Personal, one-to-one and repeated, so that trust developed. Matched to someone with the same personal characteristics who had the experience and perspective to offer insight into the reality of progressing in academia with these characteristics. I was so very glad for this honest insight."

Participants' barriers or challenges to participation in the programme and implementation of advice

Participants were asked in the end of programme survey to "Please describe any barriers or challenges that you encountered to being able to participate in any of the activities in the Inclusion Matters programme. The most frequent comment was that time was a barrier; either because of workload or because of Covid-19.

"Time available. Normally I am heavily committed to teaching and meetings and, with lock down, this was even more so."

"Time was a big problem - I would have liked to do a lot more."

"Being in the lockdown, I have two kids home schooling and a full-time job which was a challenge for me to participate in any of the activities in the programme."

The postponement or change in activities due to Covid-19 affected others.

"The lock-down limited the capacity to work with industry."

"Delay in activities running."

In addition, participants were asked for their response to the question "Please describe any barriers or challenges that you encountered to being able to implement the advice given in any of the activities in the Inclusion Matters programme". As with participation in the programme, the themes of time and Covid-19 (especially relating to home working, limited social interaction and recruitment freezes) were the main challenges described by participants.

"The mentor gave me great help and advice on job hunting/application, however, I didn't get time to apply for any job during the program time."

"Time - under the circumstances of the last year and home schooling while working."

"My workload was too heavy, partly due to COVID crisis, so I did not have free time to implement Inclusion Matters advice."

"The major challenge is since we are working from home, there is less opportunity to interact with people, which makes it difficult to implement the advice."

"More difficult to meet new potential collaborators right now, or to interact with colleagues other than brief meetings which most do not choose to discuss other topics in."

"The availability of funding/suitable jobs (due to hiring freezes, smaller budgets etc) has prevented me from applying for more funding and jobs."

Three participants reported that they had encountered barriers relating to their own mindset or those of their institution. The views were from participants across a range of activities, including Shared Characteristics Mentoring (as a mentee), Reciprocal Mentoring (as a junior mentor) and Being Prepared for Business workshops. This may be an area which could be considered for developing support for future implementation of the activities in the programme.

"Self esteem. A lot of the advice couldn't be applied because I couldn't believe it would apply to me, or that my institution (which was different to my mentor's) might would operate in the same way."

"We are very comfortable with our ways of doing and any change requires a lot of energy and dedication from ourselves first. This is the challenge for me."

"Traditional mindsets in the University."

Additional professional development opportunities

Participants were asked in the end of programme survey to suggest "any other professional development opportunities that you think should have been included in the Inclusion Matters programme and briefly explain why".

Respondents suggested a variety of additional opportunities they would have liked to be included.

These included refinements within the existing programme of activities:

"More networking opportunities with other participants."

"The addition of a mentor pool for mentees, to help mentees who look for certain/specific topics to discuss."

Additional sessions/topics were suggested:

"A discussion programme with academics in other institutions on business collaborations/funding where the problems, challenges and solutions can be discussed along with preparation of a pilot funding proposal to gain real experience."

"Imposter syndrome training/awareness."

"Job interview skills (including addressing language barriers for international researchers)."

"Advice for developing internal sessions to celebrate the work of under-represented staff."

"Opportunities to shadow senior management."

Consideration of the issue of funding time to attend professional development was also a recommendation:

"Funding to buy out time to attend professional development training and implement the advice."

In addition, training opportunities for staff from outside under-represented groups was suggested:

"Addressing prejudice from those not in under-represented groups that lead to the creation of barriers in career development for staff in under-represented groups."

Overall programme implementation

Key findings:

1. The developers of the programme considered that all the overarching stated aims of the project would be met, with some having been developed to a greater extent than others. in general, the project achieved its aim to provide cross-institutional activities, with representation from participants from all but one partner HEI as well as participation from multiple industry partners.
2. An improved understanding of some of the challenges and opportunities faced by groups under-represented in Engineering and Physical Sciences (EPS) was considered to have been gained as part of the project. Sharing of this understanding within and outside the partner organisations was in progress and would continue beyond the end of the programme.
3. Sharing of best practice in relation to EDI had been achieved particularly within the teams leading the different activities on the programme. These conversations were planned to continue and would include colleagues in the wider project partner organisations and beyond.
4. Retaining the cross-institutional element of the activities within any future implementation was considered to be important by the developers of the programme. However, it was acknowledged that this introduced specific challenges for future implementation including: consideration of different HEIs' policies and practices, access to funding and where to embed within organisations.
5. The delivery teams consisting of both professional and academic staff was seen as being distinctive for the programme compared to other research projects. The collaborative working brought many more ideas and diverse voices.
6. The developers identified several areas for ideal conditions for successful implementation of a cross-institutional EDI programme such as Northern Power Inclusion Matters. These included: ensuring time for understanding and completing the ethics and GDPR processes across partner organisations, finding teams and individuals who have authority to make decisions and provide resources across multiple areas within each organisation, finding a balance between staff providing time through support-in-kind and through dedicated bought-out time on the project, understanding processes for recruitment of staff across multiple organisations, building a project team with a broad range of expertise (including collaboration with professional services staff, marketing and communications expertise, social science knowledge and expertise, and close working between an academic lead with an interest in EDI and the EDI teams within each organisation), conducting focus groups to understand the local context for participants, designing an iterative development process that scales up within the project period, and ensuring buy-in to change within partner organisations.

Meeting programme aims

The developers of the programme (programme leads, project management team and work package leads) considered that all the overarching stated aims of the project would be met, with some having been developed to a greater extent than others. The findings earlier in the results section have shown that in general, the project achieved its aim to provide cross-institutional activities, with representation from participants from all but one partner HEI as well as participation from multiple industry partners.

The developers were asked in their end of programme interviews what they were looking for in terms of successful implementation of the Northern Power Inclusion Matters programme. The responses given were at two levels.

- ***Institutional level*** - At the level of the institution, the respondents felt that success factors for successful implementation of the programme would include: active recruitment of participants from all partner institutions; getting people involved in EDI conversations; getting more people interested in EDI due to the project being externally funded; working with partner organisations (including industry); generating evidence-based knowledge of the issues facing ECRs; seeing what other institutions were doing; and gauging themselves against the other partners. The regional aspect of the Northern Power Inclusion Matters was also highlighted to be important, so that ECRs are attracted and developed to encourage them to stay within the region. There was a strong sense highlighted by one of the activity leads that in order to combat under-representation, there is a need to reach a critical mass in EDI to build upon. They felt that the northern universities do not have that individually, but that there was the potential to achieve this regionally.
- ***Participant level*** - Successful implementation at the level of participants was suggested by the developers to include: a good level of participants from all partner institutions signing up; getting ECRs engaged with EDI early; getting more people involved with EDI conversations; satisfaction from participants; participants feeling better about themselves; participants feeling that they had developed; the programme understanding how participants had benefitted and participants feeling that they could join the programme from any under-represented background and that the programme was inclusive.

The paragraphs above highlight that across the developers there were a broad range of aims, seeking to address many EDI related challenges.

An improved understanding of some of the challenges and opportunities faced by groups under-represented in Engineering and Physical Sciences (EPS) was considered to have been gained as part of the project. Sharing of this understanding within and outside the partner organisations was still in progress and would continue beyond the end of the programme. Sharing of best practice in relation to EDI had been achieved particularly within the teams leading the different activities on the programme. These conversations were planned to continue, including colleagues in the wider project partner organisations and beyond.

Elements of the overall programme delivery which were particularly effective

The developers considered that there were several elements within the project that had worked particularly well. The design of the Participant Allocation Panel (PAP) process in helping to reduce bias in the recruitment and sign up process had been considered to be particularly successful. The regular stakeholder meetings with the delivery teams had been useful for regular progress checks, especially when they moved online due to Covid-19. The advisory board was considered to have been well structured, provided supportive critical challenge to the project and had been helpful to move project deliverables along. The support from the main project management team and the evaluation team was also commented upon as working well. Finally, the opportunity to learn from events and activities as they were delivered during the project was also considered to be beneficial by the developers. They considered that this may have been a feature of it being a research project, which was encouraging learning and reflection.

Adaptions to programme delivery

The developers of the programme were asked in their end of programme interviews what adaptions had been made to delivery of the programme and for what reason.

Covid-19 was raised as having a large impact on the project. When the national lockdown was implemented in March 2020, the delivery of the whole project had to be considered and decisions made as to whether and/or how to change the plans. The timeframe for Covid-19 impacting on delivery needed time to be identified and there was a wait to decide whether to move in-person activities to remote delivery. In the majority of cases, delivery was moved online, however, it was not possible to redevelop Work Shadowing for remote delivery as the in-person nature of the activity was felt to be crucial to its effectiveness. Timelines for the majority of the activities on the programme were pushed back.

The move to remote project meetings due to Covid-19 restrictions was considered to be a beneficial change to implementation as it made scheduling meetings for the large project team significantly easier when time for travel was no longer required to attend the meetings.

Another refinement within the implementation of the programme was in the overall project management team for the project provided additional support to partners. The team had been able to provide additional resource to help with implementation of activities, production and review of detailed activity specific documentation, development of content for the website and Online Platform, registration of users to activities on the Online Platform, and to support the production of whole-project outputs.

Challenges for programme delivery

When asked whether the programme had run as expected, the respondents to the developer interviews highlighted four areas which had presented challenges during the delivery of the project.

Number of partners – The development teams commented that working with a wide range of partners in the project required significant time to be dedicated to discussion and agreement of plans and documentation. This was essential for effective understanding of partner needs and for alignment of plans across the programme of activities. However, the consultation of a broad range of partners meant that sign off for changes was slower than if decision making had been focussed with a smaller number of leads.

Scope – Finalising the scope of the full programme was an area that took time within the project. Identification of how the programme of activities could best support the individual needs of the partner organisations required time to establish and discuss. In addition, changes to delivery to accommodate the impact of Covid-19 required time to adjust programme plans.

Time – Balancing time for the development and delivery of individual activities with wider programme elements (e.g. selection and allocation of participants, alignment of communication strategies, reporting to the advisory board etc.) required careful consideration as to where individual efforts were best placed. This was especially the case when re-planning due to Covid-19 as many staff on the project had roles outside the project involving strategic oversight within their organisation, implementing changes to the delivery of research and teaching and in supporting staff health and wellbeing.

Cyber-attacks – Two of the partner HEIs delivering activities suffered major cyber-attacks during the course of the project. This impacted on the project as staff at these HEIs had to prioritise business critical operations over attending or delivering the project activities. It should be noted that no data related to the project was ever at risk and the teams at these HEIs continued to successfully deliver the activities for participants.

The developers highlighted that policy is difficult to change but that the project would be endeavouring to do this through sharing of best practice and understanding. Challenges were noted in working with global industrial organisations, which were considered possibly too large to be able to rapidly implement learning from the project, therefore working with smaller organisations may be more beneficial for delivering change within a shorter timescale. The length of the project was also felt to be short compared to the timescale required for policy change and for embedding and evaluating changed practice. There was a feeling that a longer timeframe was needed to enable change, especially for an EDI project.

Considerations for implementation outside an externally funded research project

In the end of programme developer interviews, the developers were asked how representative they considered the implementation within the project to have been for how the programme would be implemented outside of an externally funded research project. The developers indicated that they considered it likely that the delivery of the programme as a whole would be different outside a funded research project, but that implementation of individual activities was representative. The question of where the individual activities would be best embedded within different organisations outside a research project was an area that was felt to warrant further consideration, along with how to fund implementation of cross-institutional activities.

There was concern expressed by some developers that the additional data collected for evaluation purposes within the project could potentially have added a burden for participants. However, it was acknowledged that so long as this is highlighted up front to participants, that this should not have a significant impact. As it had been in this project, the importance of ensuring that the research elements are embedded and integrated from the beginning was emphasised.

Future implementation

Beyond the lifetime of the project, the importance of retaining the cross-institutional element for future implementation was something that developers of the programme considered to be important. However, the developers also acknowledged that this introduced specific challenges for future implementation. Three areas were raised by the developers in consideration of future implementation:

Consideration of different HEIs' policies and practices – Each HEI has its own priorities, processes and challenges. In order for effective cross-institutional working, careful consideration and planning has to be made to ensure that there is sufficient fit between partners.

Access to funding – Access to funding for cross-institutional initiatives was anticipated to be challenging. It was anticipated that it might require an arrangement such as is seen in Doctoral Training Partnerships (DTP) to enable such working. However, it was acknowledged that HEIs do often like to be able to work together under a named collaboration and that this might be a way to encourage such initiatives. It was anticipated that senior leadership would need to champion cross-institutional implementation due to the funding challenges it potentially presented.

Where to embed within organisations – For successful future implementation, careful consideration of where to implement activities within HEIs was highlighted. Some activities were thought to potentially better fit with Organisational Development, through alignment with existing practices or inclusion in role expectations e.g. including as part of the progression and promotion process.

Development of work with industry was an area that the team were keen to expand further within future implementation. Key areas to develop included activities which support staff to find allies and to form equitable academic teams to work with industry. Breaking down hierarchical barriers, peer mentorship and teaming up to provide a supportive mechanism, as well as including lessons learned and techniques from Reciprocal Mentoring were also approaches that would be considered.

Ideal conditions and pre-requisites for successful implementation

The overall project leadership team, project management team and activity teams were asked to reflect in their end of programme developer interviews on what they considered to be ideal conditions for successful implementation of a cross-institutional EDI programme such as Northern Power Inclusion Matters. Several themes emerged from their comments, which may support future implementation of similar projects.

Ethics and GDPR – For cross-institutional EDI programmes with multiple partners leading activities, there is likely to be a requirement for sharing of personal and special category data between multiple partner organisations. Careful consideration should be made of the time and resource that will be required to enable data sharing between multiple partners. Each organisation will have its own requirements within its ethics and GDPR processes. Sufficient time should be planned in for identifying the requirements of the process at each organisation along with the time for iterative development, review and negotiation of ethics and data sharing and data management details across all partners.

Enablers- One challenge presented by the unusual nature of the project, was where a project such as Northern Power Inclusion Matters sat within each organisation. The project was a classed as a research project but was providing professional development opportunities for participants. It involved academic and professional services staff as well as participants across multiple career stages (from early career to senior leadership) and was working with both HEI and industry partners. This therefore required actions to be implemented across multiple areas within partner organisations and meant that it was essential to identify the teams and individuals that had the authority to support and action decision making across multiple areas.

Support-in-kind – Large, strategic projects are often resourced through staff time provided as "support-in-kind" (i.e. investment from partner organisations providing staff time outside the project funding). For wellbeing of staff, it was highlighted as being important to consider how such time fits within existing staff workloads and that when this approach is taken, that the expectation is not for the work to simply fit within existing workloads.

Dedicated staff time - An essential requirement for successful delivery of a project of the scale of Northern Power Inclusion Matters was considered to be sufficient support from staff with dedicated time on the project (i.e. with time bought out to deliver the project). The developers considered that delivery of critical elements within the project should be undertaken or supported by a Research Assistant or member of Professional Services staff specifically hired or bought out to deliver against objectives for the project. These members of staff could then work in collaboration with, or managed by, staff whose contribution to the project was part of their existing role (e.g. Directly Allocated staff or staff with time contributed as "support-in-kind").

Recruitment – In a multi-institution project, the recruitment process is likely to vary between partners. Sharing details of the recruitment process at each organisation reduces unspoken assumptions relating to recruitment timescales, and enables more effective project planning, especially where activities are dependent upon one another. For planning purposes, it was considered to be especially important to consider and share information about which activities are dependent upon new members of staff being in post before work on particular aspects of the project can begin.

Project team expertise – Alongside experienced project managers, administrative support and activity specific expertise, the developers also highlighted several areas related to the inter-disciplinary EDI specific nature of the project which benefitted from a broad range of skills within the project team.

- ***Close collaboration with professional services staff*** - This was considered to have been extremely beneficial, with the close partnerships being key to effective running of the project. Having voices from staff working in different areas within HEIs provided a range of perspectives to strengthen the development and implementation of the programme.
- ***Marketing and communications*** – Having marketing expertise built into the core project team from the outset, was an area that the developers considered would be beneficial for future projects. A dedicated marketing and communications role may have facilitated balancing the demands of programme development alongside communication with participants.
- ***Social science knowledge and expertise*** – Knowledge and experience of the GDPR and ethics process for the people orientated nature of the project was considered to have been critical, as the majority of academics on the project were from the engineering and physical sciences domain and did not usually work with human participants.
- ***Academic lead with interest in EDI*** – The developers suggested that where possible it was of benefit for each partner organisation to have an academic lead with an interest in EDI working closely with the EDI team in their organisation to embed practical delivery. As discussed above, having a close collaboration between academic staff and professional services was found to be particularly beneficial for effective engagement with the project.

Focus group consultation with potential participants – for EDI initiatives, there is often a reliance on interpretation of national data, due to the small number of potential participants in each individual organisation. The developers considered that building in a stage for focus group consultation with potential participants in each organisation would help to reduce assumptions about what participants wanted, and to provide focus for specific needs within the local context.

Development process - The developers considered that if the project was to be undertaken again, an approach would be chosen where the breadth and scale of activities, along with the number of partner organisations, were gradually increased following iteration cycles of activity development and refinement. As the number of activities was increased, the complementary nature of each individual activity to the others in the programme would also be developed as part of the scale up process.

Buy-in to the change that the programme is trying to make – This was considered to be essential consideration for partner organisations when choosing whether to come on board, along with an acknowledgement that implementing change can be uncomfortable. Participating organisations need to take part with a commitment to tackling systemic issues, not just short term fixes. The benefit of having senior leadership with a particular interest in EDI engaged with the project was highlighted as a significant driver for effective implementation within organisations.

DISCUSSION

6. Discussion

General summary

Overall, 107 applications were received to the Northern Power Inclusion Matters programme with 102 participants being offered a place on the programme. Although, due to Covid-19, recruitment took longer than expected and elements of the programme, activities and timeline had to be adjusted, by the end of the period of evaluation period, 78 people had participated on one or more activities on the programme. Staff from all but one partner HEI took part in the programme, along with participation from staff at five industry partners. Two-thirds of participants took part in one activity on the programme with a third participating in two or more activities.

The programme aimed to work with early career scientists and engineers, seeking to support, drive and sustain greater equality for all, including traditionally under-represented groups (e.g., women, disabled people, LGBT+, and black, Asian and minority ethnic (BAME) researchers). The project met this aim, with participants from a broad range of under-represented backgrounds taking part and 70% of participants providing information on their personal characteristics.

Participants' reasons for wishing to take part were varied but aligned with the aims of the programme. Participants were interested in hearing from colleagues in similar situations relating to balancing work with caring responsibilities; staff with a disability wanted to understand and seek advice in relation to progression and promotion; many staff were aiming to increase their confidence; others wished to share their own experience or to drive change in relation to EDI; and several indicated that they wished to help others by passing on information or being a role model. In addition, participants also stated their desire to take part in the specific activities being offered by the programme.

A discussion of the findings from each of the individual activities have been presented in the results section above. The following section discusses the overarching lessons learned from across the delivery of the activities and the programme as a whole first considering whether the programme met its aims, findings relating to awareness of EDI considerations, programme differentiation relating to the cross-institutional and shared experience elements of the programme, challenges relating to recruitment of participants, participants' expectations of the programme, and finally lessons learned for facilitating delivery of similar programmes in the future.

Meeting the aims of the programme

The programme achieved in its aim to provide cross-institutional activities, with representation from participants from all but one of the partner HEIs and from multiple industry partners. Participants considered that the programme had provided some support for the preparation of applications for promotion, senior leadership and the preparation of grant applications, and had increased confidence for some participants to submit an application. Although not all participants considered that the programme had had an impact for them in this area, it is encouraging to see that the programme had been perceived as increasing confidence for a subset of those taking part.

Over half of the participants that responded to the end of programme survey (and for whom increasing visibility of their work was applicable) agreed that participating in the programme had enabled them to make their work more visible within their department and within their institution. Over half of participants also reported that they felt that participating in the programme had led to them feeling more valued within their institution and in the wider engineering and physical sciences community. With over half of participants providing positive feedback to these questions, this could be again considered to be a step in the right direction.

Due to the overall timescale of the project and the postponement of several activities until later in the programme timeline, it is too early for many of the participants to have been able to enact advice they received to support submission of applications for promotion, senior leadership or grants. It will therefore be necessary to wait to see whether the activity supports successful applications for promotion, senior leadership positions and grants in the future.

Participating HEIs reported that the project had already led to changes in practices within their institutions. These changes included modifications and additions to training provision, reviews of practice within the institution and collaborative bidding for research funding and doctoral training programmes. The changes in practice focussed on areas where senior leaders involved with the project had influence and the ability to implement change. HEIs reported that participation in the project had not yet reached a stage of impacting on policy. Where policies had changed during the period of the project, these changes were already in the pipeline before the start of the project. This finding is not unexpected, as it usually takes several years to change policies within HEIs.

Although participants on the programme reported their intentions to change their own practice to be more aware of EDI issues and to actively improve their practice in this area, Early Career Participants (ECPs) did not consider that they could change wider practice within their institution. Perceived barriers to being able to do this included: organisational resistance and reluctance to change; large organisations being hard to change; the scale of the changes required; and the position of the ECPs not being one which had influence. It is interesting to note that senior mentors on the Reciprocal Mentoring activity considered that Reciprocal Mentoring may be a useful mechanism to include within their organisations to gather the views and experiences of ECPs. This may therefore, be one mechanism thorough which to enable ECPs to have more influence at an institutional level.

Cross-institutional programme

The cross-institutional aspect of the Northern Power Inclusion Matters programme was an important factor within its design and delivery. Both participants and HEIs had reported that they had found it extremely useful to find out about practices at other institutions. Although individual activities were already available at single HEIs, the ability to provide them cross-institutionally with multiple HEIs and industry partners, was seen as being distinctive and beneficial for the intended participants. This way of working was considered to be a positive and important aspect of the programme structure.

Perceived benefits of the cross-institutional programme

- ***For participants*** - Across multiple activities, the cross-institution, cross-discipline and cross-career stage nature of the programme was highlighted by participants as being different from other professional development opportunities, particularly for mentoring activities. Participants valued being able to speak more freely, having the opportunity to speak with peers, mentors and advisors from a similar background to themselves that had faced similar challenges (which was not always possible within the smaller number of colleagues with shared characteristics in their own institutions), and feeling like the activities they were involved in celebrated their protected characteristic rather than being isolated. Where participants had been on activities with other participants from within the own department, they had found this had increased the difficulty of having open conversations. The contribution from speakers and attendees from a range of organisations from both academia and industry was perceived as particularly effective. In addition, the topics having personal meaning to the speakers, was also felt to have made the activities stand out. Nineteen out of the 32 participants that responded to the end of programme survey (and that considered the question to be applicable to them) reported that participating in the programme had led them to increase the number of colleagues they work with outside their institution.
- ***For institutions*** – As discussed above, several HEIs had already changed practice as a direct result of participating in the project. Areas which had been directly influenced included: knowledge sharing relating to EDI initiatives; identification of institutional gaps in training needs of ECRs; prioritisation of EDI training and online provision as a result of discussions around what was available at other partner HEIs; roll out of training courses based on the provision within the programme; review of induction processes; development of race equality charter actions plans linked to work in the programme; review and development of staff and student recruitment processes to improve inclusion practices; expanding mentoring provision based on the provision within the programme; being able to drive change based on practice at other institutions; working together to submit further EDI related projects.

The additional challenges associated with practical implementation of a cross-institutional programme are discussed later in the final section on facilitating delivery.

Future implementation of a cross-institutional programme

The developers of the programme considered retaining the cross-institutional element for future implementation to be important, as it enabled participants an opportunity to meet in a safe way with others in a similar situation. However, it was also felt that this introduces specific challenges for future implementation. Three areas were raised by the developers in consideration of future implementation:

Consideration of different HEIs' policies and practices – Each HEI has its own priorities, processes and challenges. In order for effective cross-institutional working, careful consideration and planning has to be made to ensure that there is sufficient fit between partners.

Access to funding – Access to funding for cross-institutional initiatives was anticipated to be challenging. It was anticipated that it might require an arrangement such as is seen in Doctoral Training Partnerships (DTP) to enable such working. However, it was acknowledged that HEIs do often like to be able to work together under a named collaboration and that this might be a way to encourage such initiatives. It was anticipated that senior leadership would need to champion cross-institutional implementation due to the funding challenges it potentially presented.

Where to embed within organisations – For successful future implementation, careful consideration of where to implement activities within HEIs was highlighted. Some activities were thought to potentially better fit with Organisational Development, through alignment with existing practices or inclusion in role expectations e.g. including as part of the progression and promotion process.

Recruitment

Sign up by participants to the programme had been slower than expected. Although there was a good launch, the initial uptake was not as high as hoped for. Although it had been anticipated that staff with invisible/undeclared characteristics may be more difficult to recruit due to a potential reluctance to declare how they met the eligibility criteria, it was expected that those with visible identities would be more enthusiastic to participate. Several themes emerged from comments from participants and discussion with the developers as to possible reasons why potential participants may have been reluctant to join the programme.

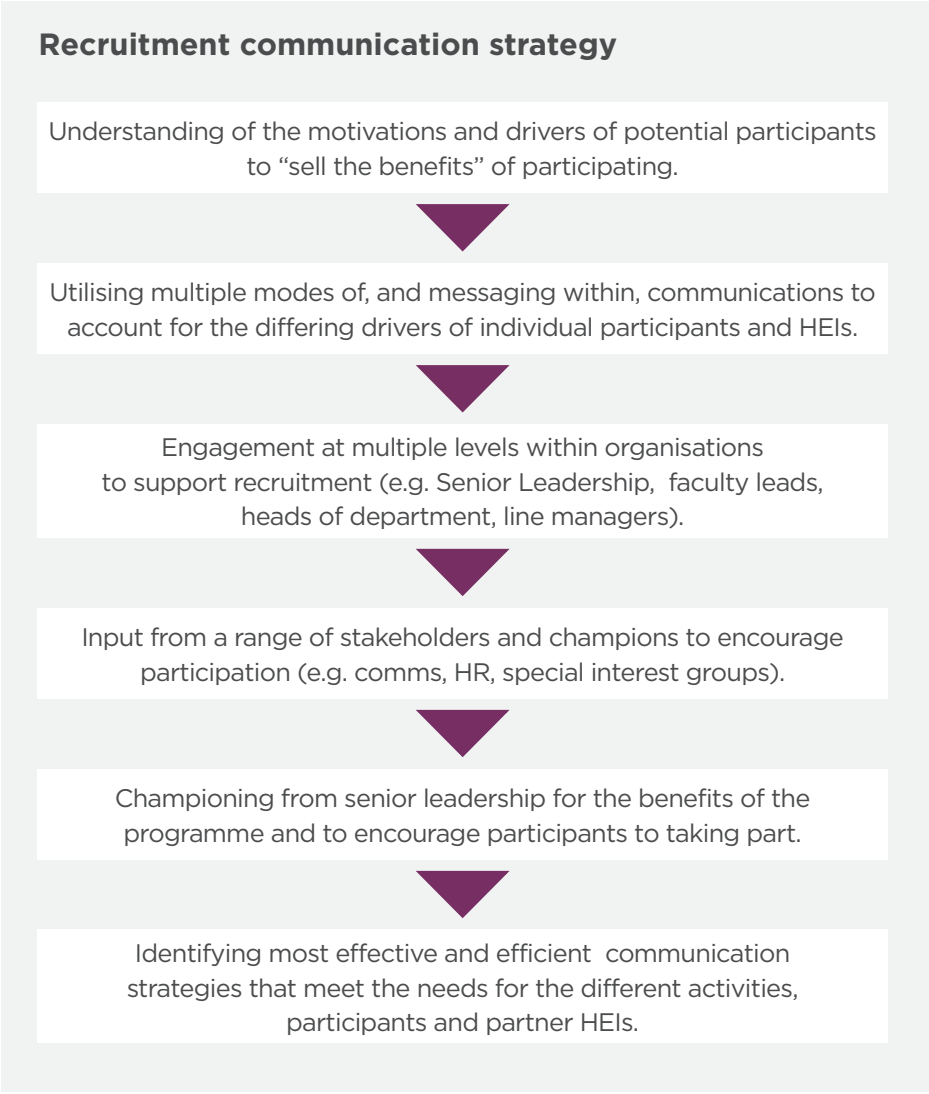
- Heavy work-loads for ECRs may have led to the programme being viewed as something which would have been a "nice extra", but not an essential activity, at a time when they felt priority needed to be given to other areas within their role. Participants commented that Covid-19 had placed particular strain on workload and time.
- Short-term nature of the contracts for some ECRs.
- The focus of ECRs potentially being on developing their research identity and increasing their research profile within their field and therefore having viewed the activities on offer as not aligning with this particular aim. The developers reflected as to whether targeting an earlier or later career stage, or indeed the pipeline as a whole, may have encouraged more participation.
- The breadth of the protected characteristics being addressed within the 'under-represented' criteria for the project. The project was designed to be inclusive for anyone that considered themselves to be under-represented. However, this increased the complexity of communications, as there was a need to tailor messaging to ensure that the programme was understood as being relevant and useful for a wide range of participants, and for the programme not to be seen as taking an approach of "one size fits all".

The key approaches to communication that the programme found overcame some of these challenges are summarised in Figure 14.

The evaluation had sought to include an additional piece of research towards the end of the programme to discuss with potential participants why they had chosen not to apply to the programme. Recruitment to participate in short interviews was attempted over several months, however, by the end of the evaluation period, no potential participants came forward to take part in interviews. This is an area that the research team will continue to investigate after the end of the project, as understanding any challenges or barriers to ECRs taking part in professional development is essential for ensuring effective support for staff.

Despite the challenges discussed above, the recruitment activities which the programme undertook enabled the programme to achieve its aim of recruiting participants from a broad range of under-represented groups, and from across partner HEIs and industry partners. The findings of the evaluation highlight the importance of not under-estimating or under-costing resourcing for the recruitment stage, and the project being willing and able to adapt and refine approaches to recruitment. Once participants had signed up, the respondents indicated that engagement had been reasonable, despite the challenges presented by Covid-19.

***Figure 14**. Factors which were found to be particularly important for successful recruitment within the Northern Power Inclusion Matters programme.*



Participants' expectations

Managing expectations

Future refinements discussed by several activities within the programme was to introduce additional communication to support managing participants' and applicants' expectations. Examples of areas where this was considered to be a particularly useful future focus were as part of the mentor matching process for both Shared Characteristics Mentoring and Reciprocal Mentoring. The process of matching took place over a long period of time, and as such, maintaining regular communication with participants to provide more frequent updates on the process and to discuss alternative options was perceived to be a beneficial addition to future implementation.

Expectations relating to professional development

Across several of the activities, expectations of participants relating to approaches to professional development was of interest. Discussion with participants and developers indicated that there was a perception that some participants considered that by attending an activity, this would lead to change in their behaviour or circumstances. However, the importance of acting on the advice they received and engaging in continued development was emphasised by the developers.

Three key areas were suggested by the developers as to where they would place more emphasis at the start of activities in the future:

1. The need for participants to be willing to try things outside their comfort zone when acting on the advice received during sessions.
2. That participation in a workshop does not in itself lead to change, the activities provide an opportunity for development conversations but will not on their own fix problems. Engagement by participants within and beyond the activity is necessary for change to happen.
3. That participants should not expect that they will receive a checklist of solutions as part of the activities. Participation in the activities should be viewed as only one part of the professional development process, and that participants need to commit to understanding the importance of continued development beyond an event.

EDI awareness

Twenty out of the 35 participants that responded to the end of programme survey (and that considered the question to be applicable to them) reported that participating in the programme had increased their confidence to be open with their colleagues about their protected characteristics. Fourteen participants reported that it had not changed their confidence.

Two specific areas were highlighted by participants for further consideration by organisations related to awareness of diversity and inclusive practice. The first area concerned increasing the awareness of staff working within and with HEIs and industry of ways to be considerate of the needs of different colleagues. Suggestions included supporting staff to embed practices such as all speakers using the microphone during presentations (and discussions following presentations) and the need to call out and challenge immediately any inappropriate behaviour of others. The second area highlighted was to increase the awareness and knowledge of EDI of those working with HEIs. In delivering the programme, it was found that academic trainers were often not knowledgeable about EDI considerations. Clear communication, guidance or requirements for experts being engaged by HEIs for training, could be a positive step to ensuring a more inclusive environment.

As part of the evaluation, partner HEIs were asked to provide information on under-represented groups within their organisations. The method by which the data was broken down varied between HEIs and due to the variation in reporting, meaningful summary of the figures as part of the project was not possible. HEIs reported that data was often held across multiple departments and systems and therefore, access to data was not always straightforward. Although steps have been taken to improve the data available in this area in the HE sector since the start of the project, to support robust evaluation of future EDI initiatives, continued improvement of collection and access to data to support EDI is essential.

Facilitating delivery - lessons learned for project implementation

The implementation and process evaluation of the project highlighted three areas of lessons learned for successful implementation of a cross-institutional EDI programme such as Northern Power Inclusion Matters.

Cross-institutional implementation

The cross-institutional nature of the programme brought many benefits but also increased the complexity of implementation of the programme, compared to activities based within a single institution. Several themes emerged relating to distinctive considerations for cross-institutional programme (Figure 15). Within each of these areas it is important to consider that the complexity and time required increases as the number of partner organisations increases.

***Figure 15**. Factors identified as being important for successful cross-institutional implementation for a programme such as Northern Power Inclusion Matters.*

Scope – Identification of how the programme of activities can best support the individual needs of partner organisations and participants at all institutions.

Development process – For experimental, pilot projects which are developing activities with or across multiple partners, the gradual increase of the breadth and scale of activities and number of partner organisations is recommended.

Buy-in to the change that the programme is trying to make – As the scope develops and is finalised, partner organisations need to buy-in to the change the programme is aiming to make, along with an acknowledgement that implementing change can be uncomfortable.

Knowledge of policies and practices at partner institutions – Understanding the systems and structures within all partner institutions is essential to understand what the requirements are for programme delivery (e.g. recruitment processes, ethics and GDPR processes, governance and support structures).

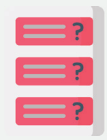
Sharing details of processes at each organisation reduces unspoken assumptions relating to timescales and capacity and enables more effective project planning.

Communication – Effective and regular contact across multiple project partners is key. This should include maintaining effective contact with any partner HEIs that are not as actively involved in the development of activities. Methods for handling changes to project contacts and alignment with changing institutional arrangements should also be taken into account.

Considerations for Implementing EDI programmes

Several factors emerged from the implementation and process evaluation specifically related to the EDI remit of the project. These are summarised in Figure 16 below. A more detailed discussion of each of the points can be found in the "Overall programme implementation" section.

***Figure 16**. Factors identified as being important for successful implementation of an EDI programme such as Northern Power Inclusion Matters.*



Focus group consultation with potential participants - to reduce assumptions about what participants want, and to provide focus for specific needs within the local context.

Ethics and GDPR - consideration of the time and resource to enable data sharing between multiple partners along with each institution's requirements within its ethics and GDPR processes.

Close collaboration with professional services staff – voices from different areas within HEIs to provide a range of perspectives and to strengthen programme development and implementation.

Social science knowledge and expertise – Inclusion of staff with specific knowledge and experience of the GDPR and ethics process to support the people orientated nature of the project.

Enablers - identifying teams and individuals with the authority to support and action decision making across multiple areas in an organisation due to the cross-cutting nature of EDI programmes.

Marketing and communications – inclusion of a dedicated marketing and communications role with a focus on communication with participants and partners.

Academic lead with interest in EDI – dedicated time from an academic lead with an interest in EDI, working closely with the EDI team in their organisation to embed practical delivery.

Project management – inclusion of an experienced project manager and dedicated administrative support, working alongside activity specific expertise.

General considerations for implementation of research projects

Finally, three general themes relating to the design of research projects emerged and are summarised in Figure 17 below.

Figure 17. *General factors identified as being important for implementation for a programme such as Northern Power Inclusion Matters.*

Time

Balancing time for the development and delivery of individual activities with wider programme elements (e.g. selection and allocation of participants, alignment of communication strategies, reporting to the advisory board etc.).

Support-in-kind

Large, strategic projects are often resourced through staff time provided as "support-in-kind" (i.e. investment from partner organisations providing staff time outside the project funding). For wellbeing of staff, it was highlighted as being important to consider how such time fits within existing staff workloads and that when this approach is taken, that the expectation is not for the work to simply fit within existing workloads.

Dedicated staff time

An essential requirement for successful delivery of a project of the scale of Northern Power Inclusion Matters was considered to be sufficient support from staff with dedicated time on the project (i.e. with time bought out to deliver the project). The developers considered that delivery of critical elements within the project should be undertaken or supported by a Research Assistant or member of Professional Services staff specifically hired or bought out to deliver against objectives for the project. These members of staff could then work in collaboration with, or managed by, staff whose contribution to the project was part of their existing role (e.g. Directly Allocated staff or staff with time contributed as "support-in-kind").

This report has presented a feasibility evaluation of the Northern Power Inclusion Matters programme, combined with a detailed process evaluation. The programme delivered a varied set of activities for participants with the activities being adapted at several stages to accommodate changes in the programme timeline and in response to the challenges presented by Covid-19. The delivery of the programme acted as a pilot and test-bed for a cross-institutional EDI programme to support staff from under-represented groups. It is hoped that the findings in this report provide useful advice and support for future implementation of cross-institutional programmes and EDI activities in Higher Education.

CONCLUSIONS

7. Conclusions

Conclusions about the programme

Overall, the Northern Power Inclusion Matters project met its aim to provide a cross-institutional programme of activities for early career scientists and engineers from traditionally under-represented groups from across the partner HEIs. The programme offered six different activities with a third of participants taking part in more than one of the activities on offer. Despite the challenges presented by Covid-19, 78 participants took part in the programme from seven out of the eight partner HEIs as well as from five industry partners.

As the delivery of several activities within the programme moved to be closer to the end of the evaluation period than had originally been planned (due to the impact of Covid-19), it is too early to measure whether the programme has supported successful applications for promotion, senior leadership positions and grants. However, responses from a number of participants at the end of the programme indicated that they considered that the activities had already, or would in future, help them with applications for promotion, senior leadership and grant applications.

The cross-institutional nature of the programme was a distinct differentiating factor between the Northern Power Inclusion Matters programme and other professional development opportunities that participants had access to. The programme had provided participants with an opportunity that they did not consider was available within their own institutions and gave them the opportunity to speak more freely and to experience cultures and perceptions of colleagues in other organisations. Participants particularly valued being able to speak with colleagues from a similar background to themselves and that had faced similar challenges (which was not always possible within the smaller number of colleagues with shared characteristics in their own institutions). However, the challenges presented for retaining a cross-institutional programme outside a research funded project were acknowledged, and require careful consideration for future successful implementation. The evaluation has also documented lessons learned during the programme for successful cross-institutional implementation.

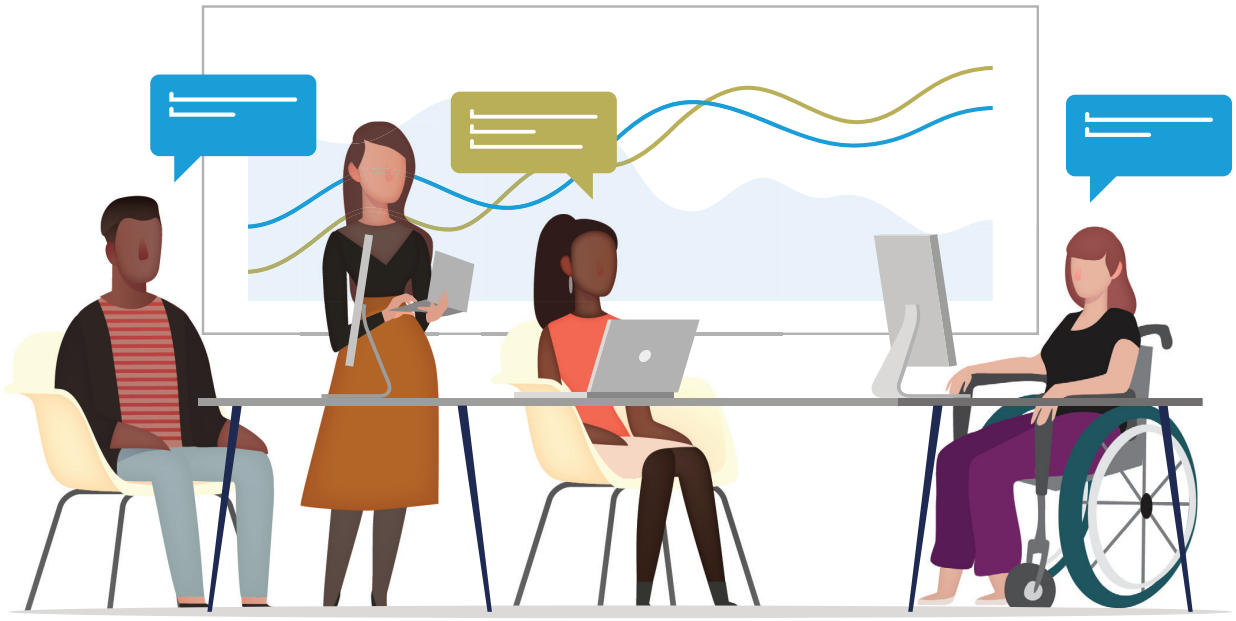
HEIs involved in the programme were already reporting changes in practice within their institutions as a direct result of their involvement in the project. The changes had so far been practice based in areas where senior leaders involved with the project had influence and the ability to implement change. HEIs reported that participation in the project had not yet reached a stage of impacting on policy, which is not an unexpected finding given the timescale of the project compared to the timescale for policy change in large organisations.

Overall, the Northern Power Inclusion Matters programme has shown the feasibility of implementation and perceived benefits for participants of a cross-institutional EDI programme and has provided important findings to support implementation of future programmes of this type.

Limitations in the evaluation design

There were several constraints on the design and undertaking of the evaluation of the Northern Power Inclusion Matters programme. The original design of the project was based on an unknown potential number of participants. It was also not known at the outset of the project whether participants would be able to take part in more than one activity on the programme, as this was also dependent upon participant numbers. A narrative rather than statistical design for the evaluation was therefore planned to accommodate potentially low numbers of participants. Further complexities arose during the course of the programme from the introduction of a short registration form to encourage participation for some activities where registration numbers were low. The short registration form captured only a small subset of data from participants and as such, there was missing baseline data for a large number of participants. The compromise in the data that could be collected was discussed in detail with the programme team before the change was made, and it was felt that this was the best compromise between increasing the number of participants and the data that could be collected for evaluation purposes. Challenges around the availability of data were also present in the end of programme survey, where the final completion rate was relatively low (50%). This may have been due to competing priorities on participants' due to the impact of Covid-19 on time and workload. Finally, delays in delivery due to Covid-19 also meant the timeline on which impact was expected to occur was no longer present within the programme (i.e. there was no time for participants to significantly act on advice before the end of programme evaluation data were collected). The evaluation therefore focussed on understanding the perceived impact of the programme for participants alongside a detailed process evaluation in order to evaluate the feasibility of implementation.

APPENDIX



8. Appendix

The following appendix contains the data collection tools for the evaluation of the Northern Power Inclusion Matters programme.

Area of programme	Documents
Project	Baseline survey
	End point survey
	HEI policy and practice audit beginning
	HEI policy and practice audit end
	Recruitment audit
Shared Characteristic mentoring	Senior mentors interview schedule
	informal interviews with management team schedule
	Interview schedule with WP lead
	Reflective report for junior mentors
Reciprocal Mentoring	Online survey for senior mentors
	Observation schedule for training session
	Interview schedule with WP on matching process
	Reflective report for junior mentors
	Interview schedule for senior mentors
	Interview schedule with WP lead
Online Platform	Google analytics
	Moodle analytics
	Interview schedule with WP lead
Networking for career development	Participant interview schedule
	PDP and Network Suggestions documentation
	Interview schedule with WP lead
EDI in EPS	Attendance data
	Workshop observation schedule
	Post workshop online survey
	Interview schedule with WP lead
Being prepared for business	Attendance data
	Workshop observation schedule
Project Leadership	Interview schedule leadership team
	Interview schedule project management team